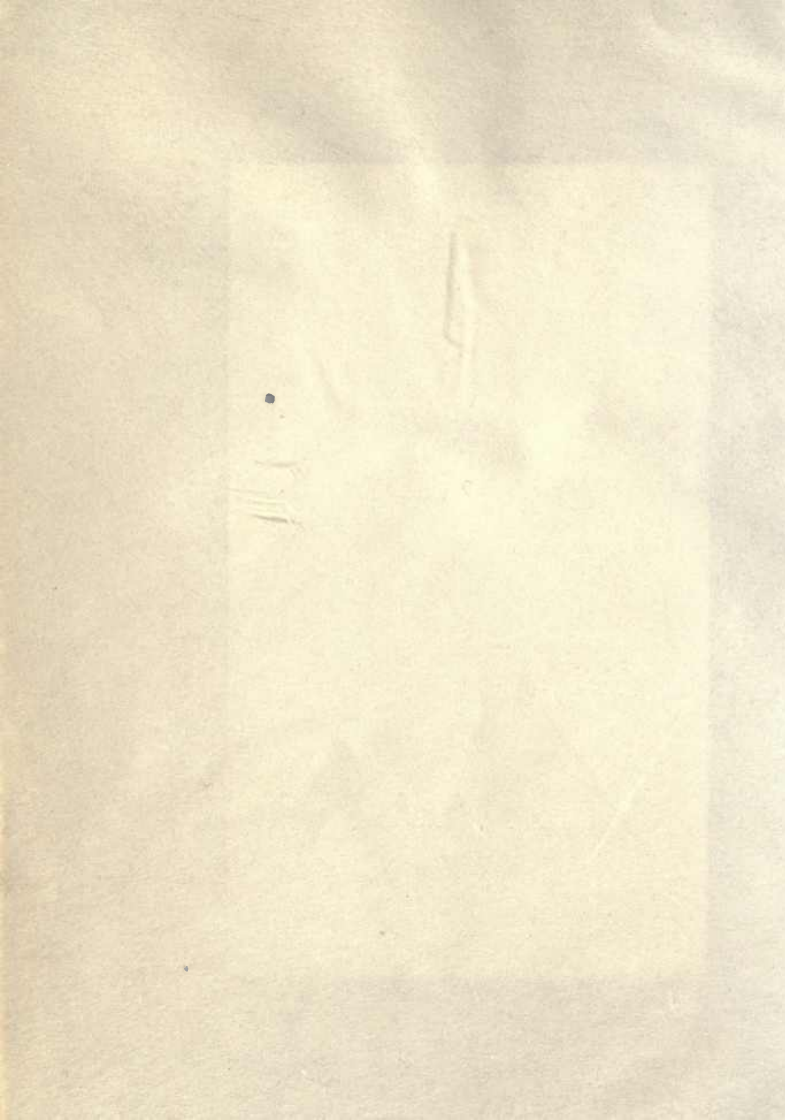




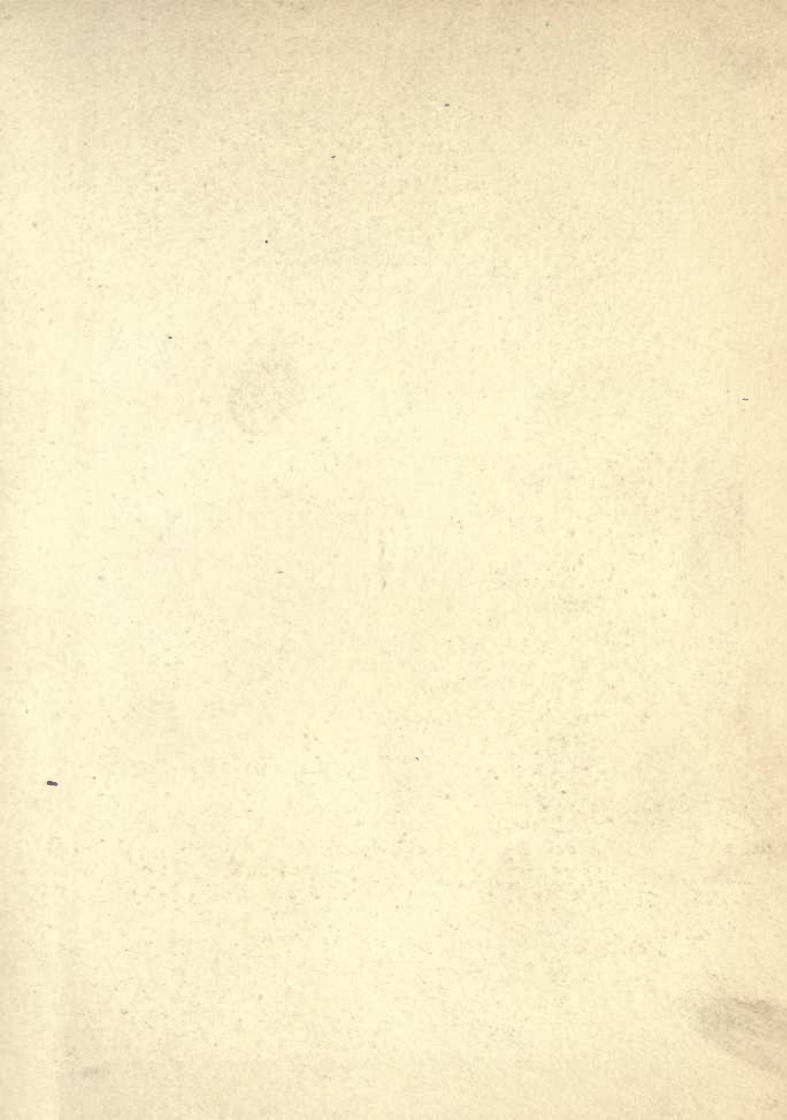


THE LIBRARY
OF
THE UNIVERSITY
OF CALIFORNIA

PRESENTED BY
PROF. CHARLES A. KOFOID AND
MRS. PRUDENCE W. KOFOID



VOICES FROM THE WOODLANDS.





W.F. del et lith.

R.B. & Rimp

OAK.

VOICES
FROM
THE WOODLANDS,
DESCRIPTIVE OF
FOREST TREES,
FERNS, MOSSES, AND LICHENS.

BY
MARY ROBERTS.

LONDON:
REEVE, BENHAM, AND REEVE,
KING WILLIAM STREET, STRAND.

1850.



PRINTED BY REEVE, BENHAM, AND REEVE,
HEATHCOCK COURT, STRAND.

K-QK50

R6

Biol.

Libr.

This Volume,
DEDICATED TO THE ADMIRERS
OF
WOODLAND SCENERY,
IS DESIGNED
TO AWAKEN THE SYMPATHIES OF THOSE
WHO MAY HAVE PASSED HITHERTO
AMID
THE BEAUTIFUL SOLITUDES OF NATURE
UNMINDFUL
THAT EVERY TREE HATH ITS OWN HISTORY.

M351780

P R E F A C E .

METHINKS I hear some one say, Why are things inanimate thus fabled to speak? Why not rather tell concerning their properties and uses, and the places of their growth, without having recourse to fiction? Be not chafed, courteous Reader, but remember, that poets in all ages have preferred to instruct mankind after the same manner; that even the Sacred Volume offers a precedent which cannot be objected to;—when Jotham, desiring to reprove the treachery of the men of Shechem, went to the top of Mount Gerizim,

and put forth a parable concerning the trees, who sought for a king to rule over them.

Sanctioned, therefore, by the usages of antiquity, and, above all, encouraged by the example above cited, I have ventured to assign both speech and memory, with the love of poetry and nature, to many an aged tree or sapling, fern or way-side moss; trusting that some who read, will go forth into the woods, and learn to gladden their solitary walks with associations of engrossing interest.

VOICES
FROM
THE WOODLANDS.

CHAPTER I.

LICHENS.

Upon this herbless rock a small grey Lichen
Did fix her home. She came with meek intent,
To bless her stern and sterile place of rest ;
And presently her gentle sisters followed,
Some vestal white, and some in robes of brown,
And some in yellow vestures, labouring all
At the same work, with tiny cups held out
To catch the rain-drops, and with mattocks small
To pierce the rock. And well did they effect
Their destined purpose.

A FEEBLE tribe are we, said a small voice from off a lichen-dotted stone; and yet, Stranger, many a wildly-wooded spot, where giant trees bend from their strong holds over rushing

torrents, owe their beauty and luxuriance to our unwearied ministry.

Periods have been in this world's history, nor less in that of isolated spots, when the rugged flanks of granite rocks, desolate and herbless, uprose from out their depths. Summer suns shone on them, and soft showers fell silently upon them, from one season to another; but no return did those stern rocks yield, till the seeds of crustaceous lichens—for such Linnæus calls us—were scattered by the winds in fissures wrought by time or storms, and, spreading gradually over the sterile surface, varied it with our multifarious tintings. Years passed on, and with them the ever-recurring round of decay and renovation, till at length a slight accumulation of fine earth became deposited. In this, seeds pertaining to small plants were committed by the wind, that random sower! till, becoming in their turn a richer kind of vegetable mould, innumerable mosses sprang up, and produced a pleasant green turf fit for the reception of larger plants. Among these rapidly appeared both grasses

and bright flowers, again to be succeeded by shrubs and trees, till at length, after the lapse perchance of ages, extensive woodlands mantle in their luxuriance those bold and precipitous rocks on which our small tribe first took root.

Take notice of our exceeding beauty, for although but small, and seeming to form part of the stony mass to which we cling, few among the vegetable tribes may equal us in delicacy of form or tint. Look carefully, and you may count at least nine species on the rough stone beside you, among which is the violet-scented lichen, conspicuous for its brilliant hue. Linnæus speaks of this our brother, in his tour through Oeland and East Gothland, as tinting the stones, on either side his pathway, with a red pigment, which, on being rubbed, became bright yellow, and yielded a scent of violets; whence the natives call them violet-stones, though the stone itself is scentless. The same bright lichen appears like blood-red stains on the stones of Holywell in Flintshire. Men in old times fancied such stains were left when St. Winifred was martyred amid its rushing

waters; that the stream, though exceedingly rapid, and hurrying from out its channel whatever tended to pollute or to obstruct its course, left unchanged the deep stain impressed on its stones, that after generations might remember the martyrdom of St. Winifred.

Observe also the scarlet lichens which diversify this time-worn stone with their bright cornelian-tinted tubercles and greenish crust, growing profusely on the vast masses of Stonehenge, and incrusting many a memory-haunted tree or ruin. The white coral-crust ed lichen, too, is here, of snowy whiteness, and bearing on its surface mimic pillars, resembling corallines; and close beside, appears the crab-eye lichen, indigenous to rocks in the north of England, and yielding a crimson or purple dye. The tartareous lichen has also its own specific character. It grows oftentimes on old trees and mosses, which it covers with yellow saucers, in a manner analogous to incrustations formed by springs that abound in calcareous particles and flow over beds of moss or river-weeds. A few tufts grow here, but amongst the stones

on the lake side, this same lichen spreads like a close carpet.

Useful, too, in commerce, and yielding a dye of no ordinary beauty, is the grey-brown orchil, which you may readily distinguish by its rising out of a chalk-like basis to the height of two or three inches. Though frequent in the glen, its favourite localities are the coasts of Guernsey, and the wild sea-cliffs of Tintagel Castle, where King Arthur held his court: it mantles also the rocks of the Canary Islands, with those of the Grecian Archipelago, and, when scarce, has been sold at the enormous price of one thousand pounds per ton. Although the purple dye is somewhat perishable, it imparts an exquisite bloom to other colours. Nor less worthy of remark is another of our small brotherhood, the prickly lichen, clustering in thick tufts, with its interwoven and compressed branches, ending in fine thorns; rare in northern climates, but common to the same localities as the orchil, where a fine red pigment called lake is prepared from its stems.

Patches of lungwort diversify the same locality, not growing with their brethren in the full light of day, but rather on the shady side of the old stone; and among them is the grey, and wrinkled sulphur lichen,—the one yielding a deep yellow, the other a pale orange-colour. Preferring, in like manner, a damp and shady place of growth, the creeping verrucose lichen, from which a bright blue is extracted, has fixed its roots in the same habitat. You will not find the blistered lichen in their dull company, with its brown foliage, consisting of a single leaf. This cheerful species incrusts our domicile towards the south; it loves to bask in the bright sunshine, as if to heighten the beautiful red colour which it contains: and yet, however brilliant, that colour when extracted is capable of being changed into an excellent black.

Others of our tribe pertain to the ravine, imbedded either on huge masses of ruptured rocks, or else mantling old trees with their pendent tufts. Yonder stunted pollard, which stands singly beside the rush of the torrent, is hoary

with tree-moss, from which a gum is extracted which answers the same purpose as that known by the name of Senegal. The ragged mealy lichen differs somewhat in its growth and hue, and is readily distinguished by numerous irregular cracks on the sides and edges of its broad segments. A mucilage is extracted from them, which in drying becomes transparent, and possesses the essential properties of gum-arabic. Further up the glen a group of aged trees, growing among ferns, are covered in like manner with long tufts of the ragged lichen, which differs according to its place of growth—such as affect the willow being nearly as soft as silk, while such as pertain to the hawthorn assume a hoary appearance,—but, wherever growing, imbued with the singular property of retaining odours, and becoming in consequence the basis of many perfumed powders.

Such are a few among our tribes indigenous to Britain, and of which the seeds, sown by autumn winds, took root in the interstices of the old stone, or found a resting-place in this solitary ravine. Mark well our dissimilar localities

and such as you find them in this wild spot are our habitats throughout creation. Children of the rock are we, often growing on sterile and lonely heights, where the winds of heaven fiercely contend, and the sleety shower beats with un pitying violence ! No rock so sterile, but we seek to embellish it ; no stone may lift its bare forehead amid the grass, but we haste to shed over it somewhat of the aspect of vegetation. We incrust oft times old balustrades and broken columns, and vary the worn surface of many a venerable pile, which has nought else of beauty to commend it. Beacon plants are we, noting the rock from which we spring ; for as our brother, the violet-scented lichen, grows on rocks and stones of quartz, so is the calcareous peculiar to those of lime formation, that he who passes may readily distinguish them apart, however thickly incrust ed ; the latter, too, when dried and powdered, imparts a brilliant scarlet, and is much used in dyeing by the Welsh and Scotch.

Thus beautifully diversifying, with an exquisite variety of

intermingling hues, the places to which we are assigned, grow lichens of all forms and hues. The crisp-incrusted, with smooth stems confined like sea-weeds to the rocks, constitute the beginning of vegetation even on blocks of lava. Scarcely has some fiery convulsion hurled forth huge masses of lava, to cool amid scorched vineyards, or to carry desolation wherever they extend, than that same lichen takes root among the cracks, and grows not unfrequently to the height of nearly four inches, on which, in Iceland, reindeer often pasture.

Thus spake small voices from off the time-worn rock, concerning latent qualities and uses, which few perchance have noted; and one who heard with fancy's ear would carry on the subject, telling of mountain ranges where lichens linger on the verge of eternal snow,—respecting also that gradation of vegetable life, which proceeds in regular series from vines and flowers to the boundary line of vegetation verging on regions of perpetual ice.

Linnæus, in his Lapland Tour, notes the gradual decrease of vegetation on mountain sides. Esmack, member of the Norwegian Council of Mines, sought to ascertain such facts as bore expressly on the subject, and for this purpose he ascended Schneehattun, or the Snow-capped Mountain. This wild hill had much to interest the naturalist. It was shrouded with a snowy mantle, on which clouds seemed to rest; and at one point, where a partial thaw had occurred, layers of vegetable mould, separated by a rind of ice, were readily discovered. Considerable difference, with regard to the boundary line of vegetation, was obvious on the sides of the mountain, as likewise the kind of trees and shrubs, in proportion as they were capable of bearing a greater or less degree of cold. Fruit-trees thrive and became productive at an elevation of one thousand feet; barley and oats, in sheltered places, from fifteen to eighteen hundred feet above the level of the sea. To these succeeded forests of larch and pine, or birch-trees, in regular gradation; next, short grass, with several species of herbs, adapted to the pasturage of cattle; higher up the

mountain, appeared at intervals a few stunted birches, dwarf willows, and juniper-trees; mosses and lichens came next; and lastly, rugged and frowning rocks, among which occasionally, and wherever the surface of the rock became visible, a few lichens, though often incrustated with snow, peeped forth, as if wishful to assert the empire of Flora, even on the verge of perpetual winter.

Who that ever visited the island of Teneriffe does not remember with delight the five zones of plants, which the Peak exhibits? Zones, beautifully arranged in stages one above the other, and rising to the height of one thousand seven hundred and fifty toises.

The first zone, that of the vines, sweeps upward from the sea-shore to an elevation of five or six hundred yards. It is well cultivated, and varied with farm-houses and cottages, among which grow giant spurges, mesembryanthemums, and flowering shrubs, of which a considerable number exhibit, in their succulent leaves and tints of bluish green, characteristics which distinguish the vegetation of Africa. Noble groups

of date-trees tower above the landscape, conspicuous against the azure of a sky, of which the clearness is unsullied by any trace of vapour; plantains also, sugar-canes, and Indian figs, with giant arums of the purest white, olives, European fruit-trees, vineyards, and fields of corn, appear in mingled beauty. Neither is the bread-fruit of Otaheite, the cinnamon of the Molucca islands, the coffee of Arabia, and the cocoa of America—vast vegetable columns rising majestically at least sixty feet in height—wanting to this delightful region.

A belt of laurels, termed the abode of perpetual spring, forms the second zone, or woody portion of Teneriffe. Covered with verdant turf, and refreshed by streams of water, this pleasant zone exhibits also lofty forests, varied with different kinds of laurel, arborescent olives, iron-trees distinguished by leaves of indescribable beauty, and myrtles of various kinds, that rise to a commanding height and load the air with fragrance.

To this succeeds a third zone, varied with groups of

arbutus and candleberry myrtles, beneath which the earth is profusely carpeted with a beautiful heath, known to the natives by the name of Texo, and forming a striking contrast to the vast forests of dark and sombre pines, which surround them as a girdle.

Grasses and lichens constitute the fourth and fifth zones, among which heaps of pumice-stone and masses of lava, hurled from the summit of the mountain, are seen in all directions. Tufts of flowering broom, however, present occasional patches of verdure; and two herbaceous plants, the figwort and a gigantic kind of violet, advance even to the Malpays. To these succeed a turf scorched by the beams of an African sun, where the humble *Cladonia paschalis* overspreads a burning soil, and athwart which, wreaths of smoke and flame often hurry in their headlong course, when the herdsman has unwarily set fire to some patch of arid vegetation. Higher up, innumerable lichens labour unceasingly at the decomposition of scorified matter; and thus, by a continual combination of organic forces, by

slow and unwearied efforts, the empire of Flora extends itself over places ravaged by volcanic fire. If, therefore, the plants of Teneriffe do not reach the verge of the crater, it is not because perpetual snows, and the cold of the surrounding atmosphere, lay down limits which they cannot pass: it is that the scorified lava of the Malpays, the powdered and barren pumice-stone of the Piton, offer insurmountable obstacles to such plants as grow among them, and imperiously prohibit any further advance towards the brink of the crater.

Hence it is, that on the summit of the Peak nought of vegetation is discoverable; no trace even of the humblest lichen, no insects fluttering in the air. An awful scene of desolation meets the view; while the solemn stillness of the place is broken only by the sound of winds, which, coming in hollow gusts, resemble the roar of distant cannon.

CHAPTER II.

MOSSES.

A small grey sisterhood of plodding lichens
Wrought on the rock; the sun, the wind, and rain,
Helping them gladly, till, each fissure fill'd
And fit for planting, Mosses came in haste
And strewed small seeds among them,—destined they
To clothe the stern old rock with softest verdure,
With ferns and flowers, where yet the labouring bee
May find her pasture.

WE sit beside our sisters, the tiled lichens (said a gentle voice, speaking from out a bed of moss), beautifying many an herbless mass, and preparing, as years glide on, that deposit of vegetable mould on which large plants may find a resting-place. Unlike the generality of our vegetable brethren, chill winter does not harm us, neither may

summer suns affect our verdure. When deciduous trees begin to lose their leaves, or when the woodlands are varied with autumnal tints, we still look green, and embellish many a rough bank or streamlet edge, from whence even the lingering crane's-bill and eye-bright have departed. But would you see us in all our beauty and utility, go to the wild solitudes of Lapland, and retrace the haunts which Linnæus has so well described.

Lapland mothers know well how to value the grey bog-moss, or its elegant variety of a beautiful peach-colour, of which the capsules burst with a crackling noise, making the passer-by to start and look around, fearful lest the herbage should have suddenly caught fire. They tastefully decorate, with this valuable species, the cradles of their infants, and also wrap them in it as an excellent defence from cold.

Nor less valuable to the natives of those sterile regions is our brother, the common hair-moss; and rarely has the goodness of the Great Creator been more wonderfully

evinced than in providing both beds and coverings for those who traverse the savage wilderness of Lyckselle Lapland. Linnæus availed himself of the protection thus mercifully bestowed, when, having to pass the night amid scenes of inconceivable desolation, far from all human habitation, and unknowing where to bend his steps, he selected the starry-headed plants, on account of their greater softness, and, having traced with his knife a considerable circumference, he separated the thickly-tangled herbage from the earth beneath; for, although the shoots were scarcely branched, they were yet so much entangled as to form an elastic couch and coverlet, beneath which the traveller lay down to rest, amid the solemn stillness of those wild regions, while on high a few stars of the first magnitude looked down through the dim twilight on that solitary man.

The same moss grows also in different parts of Britain; and those who cheer their rambles with pleasant thoughts of things around them, may do well to observe the wonderful construction of our brother. His haunt is often on

bleak hills, and hence, to defend the seed-vessel from the injury of the weather, it is covered with a cone-shaped umbrella. This appendage, when the seeds begin to ripen, loosens from the place to which it had hitherto been firmly fixed, and falls off; the stem, also, which upholds the seed-vessel and its elegant appendage, remains in a reversed position, till the seeds are fallen to the ground.

Few, perchance, have seen another of our tribe, the shining feather-moss,—that vegetable glow-worm, which sheds a golden green light in the shady recesses of damp caves, glimmering like a fairy lamp, fabled to light the tiny people in their nightly revels. Yet, not less strange than true is this wondrous property, and which, when seen by him who explores, for the first time, lone caverns in solitary places, awakens somewhat of a feeling akin to fear. This property, peculiar to our tribe, has no parallel in the vegetable kingdom. It cannot be referred to electricity, neither does it originate from any luminous quality in the plant itself. It is caused by rays of light, however faint,

being concentrated and reflected from the innumerable and inconceivably minute lenses of its thin, pellucid, and pale green leaves, which shine as if wet with dew. The cavernous and gloomy rocks of Dartmoor are beautifully illumined by this mild light, as also the shady recesses of the Rowter rocks in Derbyshire.

Others of our race are found in places the most dissimilar;—some on commons open to the sun, or mantling with untiring diligence high cliffs or swampy hollows. Level marshes and bank sides are visited by mosses of luxuriant growth, while some of the more graceful species delight in woody places, filled with dancing lights and shadows, and all pleasant sounds. The greater water-moss prefers the neighbourhood of cataracts, and flourishes most where the waters rage impetuously in their onward course; the slender-branched thread-moss thrives, on the contrary, amid dry rocks; and the great hairy thread-moss roots itself on walls and the roofs of cottages.

“The wildest glen on earth can show
Some touch of nature’s genial glow :
On high Benmore green mosses grow,
And heath-bells bud in deep Glencoe,
And copse on Cruchar Ben.”

Gather the humblest from among our company, and describe, if you can, its varying lights and shades, its different hues, now bright, now dark, as the sunbeams come and go, or clouds pass athwart the heavens. Observe, too, its wondrous construction,—the adaptation of its roots to rock or fen, the varied beauty of its leaves, and the exquisite finish of all its parts, and learn from them that deep wisdom is manifested in the smallest plant that imbibes the dew of heaven.

• And what more beautiful than a brotherhood of mosses growing among the tangled roots of aged trees, scathed by time, and twisting in their strange fantasies adown steep banks on either side of some green lane, that winds away—away—into the woodlands? You may see one and then another nestling between the huge blocks of stone, or among

interstices formed by the roots, looking fresh and green in even the most sultry weather, and sported over by dancing lights and shadows, as over-arching branches wave in the breeze of summer. Wild strawberries grow among our friendly tufts, that keep the otherwise dry soil moist, and the merry voices of young children oftentimes wake up the echoes when searching for their scarlet-coloured fruit. Some adventurous urchin makes a ladder of the old roots, and climbs to their high growing-place, while his little sister holds up her blue apron for the tempting bunches which he warily throws down. And then what glee and peals of merriment, and trampling of young feet, are heard and seen, as first one, then another, vainly attempt to scale the high bank, and as often tumble in their rashness !

But still more beautiful are mosses when clustering round the well-head of a bright, clear stream, that gushes forth from a rugged bank, mantled with ferns and flowers, throwing its random spray on the bright green brotherhood, and causing them to drip and glisten in the sunbeams, even

to reflect, it may be, the hues of that bright arch which now spans the valley in its glorious beauty.

Have you not read that, in ancient times, our giant brother, the *Sphagnum palustre*, or grey bog-moss, usurped, with his dense compact tufts and leaves of intense green, a vast range of desert country, now covered with corn-fields and cottages, with green meadows and groups of cattle; and that, as time went on and changes were wrought by war or storms, that same moss underwent a strange metamorphosis, and passed into a substance which is called peat, intermediate between his past condition and half-formed coal? Travellers will tell you, that the same substance, composed of all such vegetables as grow best in watery places, occurs in the southern hemisphere; but with this difference, that none of our tribe enter into the composition of South American peat,—not even in the swampy parts of that portion which is drained by the river La Plata, on the east side of South America, nor in the island of Chiloe to the west. The same unerring law which restricts the calceolaria

to the southern hemisphere, and forbids the heath to vegetate in the New World, exercises its inexplicable influence over the unassuming moss. But when the traveller reaches the 45th degree of latitude, and examines the peat of the Chonos Archipelago, or the Falkland Islands and Tierra del Fuego, he again finds an abundant growth of our friendly tribe.

Forests occupied in old times the site of those vast fens where our brethren became developed in all their greenness and luxuriance, and which, known by the name of mosses, comprise a wide range of country. Such mosses owe their origin to the fall of trees, and the obstruction caused by their branches to the free drainage of atmospheric waters. Thus, in Mar forest, in Aberdeenshire, travellers relate that large trunks of Scotch fir, which had fallen from age, were soon covered with moss; thus, also, the overthrow of a forest by a storm, gave rise to a peat-moss near Lochbroom, in Ross-shire.

Observe the wonderful construction of this usurping

moss. He possesses the singular property of throwing up new shoots in the upper portion of his thickly-entangled branches, while the lower part gradually decays; and thus the course of years produces no other effect upon this member of our tribe than the deposit of vegetable mould, and the rising, as it were, of one layer upon another, till hollow places are filled up, and the huge trunks and branches of fallen trees are concealed from view.

Roman roads have in consequence been discovered at the depth of eight or ten feet, as also coins, and warlike instruments, with those of husbandry; and some years since, the body of a woman was found in one of the Lincolnshire peat-mosses. The night of centuries must have passed over her since, flying perhaps for refuge to one of her native forests, she perished in its recesses, and her lone requiem was that of winds or birds; for her antique sandals afforded evidence that she must have remained undiscovered for ages, and yet there was no trace of decay. In Ireland one of her earliest aborigines was in like manner recently

exhumed;—the remains were buried a foot deep in gravel, and covered with eleven feet of moss; they were completely clothed, and the garments seemed to have been made of hair. Thus men, in remote ages, clothed themselves, before the introduction of wool-bearing animals brought the loom and distaff; and hence, without doubt, those remains belong to a period antecedent to any written records concerning Ireland.

The great moss of Solway includes a flat area of about seven miles in circumference, forming part of the western border-land between England and Scotland. It looks well to the eye, and green are its grass and rushes, but the slightest pressure discovers that the bottom is unsound and semi-fluid. Guides, however, venture to conduct the traveller across its perilous surface during the hottest summer months; but woe betide him if he is allured by some beautiful bog-plant, or if, forgetful of the perils by which he is surrounded, he deserts the rushy hillocks that stretch across the waste. There the soil is firmest, but on either side the

danger is imminent : if his foot happens to slip, or is put down unwarily, he may never more be seen. Solway moss is a wild and tradition-haunted place. Fiery shapes are seen, oftentimes, skimming rapidly where mortal steps may not adventure ; fearful to look upon, yet somewhat beautiful, for the *ignis fatuus* assumes a variety of fantastic shapes ; at one time resembling a globe of fire—at another, a flickering light—at another, a pale meteor-form, hovering over some legendary spot. Such are the night fires of Solway moss ; and tales are told concerning them beside the wintry hearth, which make the heart of many a timid urchin sink within him. “You may not see the spot,” said an aged sire, “for the night has gathered, and methinks I would not look out into the darkness, lest, perchance, we should see its strange, unearthly guards. But you know the old stunted willows, that stand on the verge of the firm land. There it was that, after the fight of Solway, when the Scotch army, commanded by Oliver Sinclair, was routed, a troop of horse came rushing over the plain, and plunged,

without thought, into the morass, which instantly closed upon them. Ah! well-a-day! there were breaking hearts in many a cottage among the hills, ay, in castles too! They were fine men to look upon, that troop of highlanders! dressed and armed according to the fashion of their country, and well mounted; but the horses seemed panic-struck as well as their riders, and in they went! Scarcely ten years since, some of the neighbouring peat-cutters found the skeletons of a man and horse, in complete armour; the flesh was gone, but the armour remained entire, and doubtless, if they had sought further, they might have found the troop mounted like living men; but, a few yards onward, the moss was unsound and wet, and they would not venture."

Listen to the voice of chemistry, and she will explain from whence originates the preserving quality. She will tell you that it results from carbonic and gallic acids, which issue from decayed wood, as also from the presence of charred wood, into which, by a strange alchemy, many

fallen trees are changed in the lowest strata of peat-mosses, for charcoal is said to be a powerful antiseptic, and capable of purifying the most unwholesome and stagnant water : that, further, vegetable gums and resins act in the same way.

The small voice ceased ; and the listener went his way, reflecting on the strange and wondrous qualities which even a small moss develops at her appointed season. He thought, too, of the vast growth of mosses, and the causes from which their growth originates ; of that wondrous alchemy which, by a transmuting power, absorbs into a dry and lifeless mass its all of greenness and luxuriance.

CHAPTER III.

F E R N S.

“ Beautiful Fern,

Much have I loved, where thou art reared, in greenest strength to stray,

And mark thy feathery stem upraised o’er lichen’d ruin grey,

Or in the fairy moonlight bent, to meet the silvering hue,

Or glistening yet, when noon is high, with morn’s unvanish’d dew.”

Hollings.

FERNS spake next, and it seemed as if one rejoicing chorus had burst from every cliff and stream-bank in the lone wilderness. Children of the rock and flood are we, they said,—of heathy moors and hedge-banks; our haunts are frequently among the spray of waterfalls or cavern roofs, beneath which the wild waves come and go. They sang concerning the beauty of creation, of their own wild homes,

and the need that exists for them, and how mysteriously they are connected, not only with rocks and soils, but with every wandering sunbeam, wind, or shower, that visits the place whereon they grow.

And when the symphony of mingled voices ceased, first one, and then another, took up the wondrous tale. Harken, said the majestic crowned prince of English ferns, the flowering-fern or bracken, bearing his rich brown seeds in spikes, resembling sceptres. My favourite haunt is Loch Tyne, with its clustering islands and wide expanse of water, growing, according to my mood, either erect and rigid, or else gracefully bending above the current, and forming a shelter for the timid coot, which gazes on the passer-by from beneath my canopy. Know you that active, lead-coloured bird, with her quick, glancing eye, skimming rapidly upon the surface of the water, and building her nest among the rushes? A home-loving bird is she, preferring her native streams to any other, and, when her young are hatched, leading them among the labyrinths formed by my drooping

branches, where the waters well and murmur, and the glad young creatures splash merrily in and out, now glancing in the sunbeams, and again as rapidly disappearing.

Princes have their palaces and country houses, some for state, others for enjoyment ; and thus it is with me. Loch Tyne is of all places the one "beloved the most ;" but my metropolis is Cunnemera, in the west of Ireland, and there no other fern may lift his head. The islands are subject to my sway, and the tranquil waters that flow around seem proud to reflect my image. At Loch Tyne dwelt the waterman old Osmund, whose heart, as poets sing, is impressed in my roots when cut. Who that ever lingers in that wild spot, does not hear the legend of old Osmund, which young watermen of the present day sing to the dipping of their oars, and the echoes repeat from out their haunts in the wood-side?

Fairest among maidens was the daughter of Osmund, the waterman. Her light-brown hair and glowing cheek told of her Saxon origin, and her light steps bounded over the

green turf like a young fawn in his native glades. Neither want nor sorrow had visited her father's cottage, since Ælfreda shed the gladness of her spirit on that home; and often, in the stillness of a summer's evening, did the mother and her fair-haired child sit beside the lake, to watch the dripping and the flashing of the father's oars, as he skimmed right merrily towards them, over the deep blue waters.

Sounds were heard one day, as of hasty steps, coming in swiftness and in fear; and presently a company of fugitives told, with breathless haste, that the cruel Danes had fired the old monastery of Avondale, and were making their way towards the ferry. They counselled Osmund to secrete his wife and daughter, lest the spoilers should take them captive, and the mother and her child be sold into distant slavery,—for such was the custom of those fierce men.

Osmund heard them, and his heart failed with fear; for the country, though thickly wooded, afforded neither caves nor coverts, wherein to find a hiding-place. Suddenly a

red glare was seen on the horizon, as of villages on fire, and the shouts of furious men came remotely on the ear ; the fugitives rushed on, and Osmund stood as if senseless for a moment, when a glad thought arose within him, and, snatching up his oars, he rowed his trembling wife and his fair child to yonder small island, covered with the great Osmund royal, rising some feet in height towards the centre, but drooping round the margin, and extending in tufts into the river, according to its mode of growth in marshy places. Osmund moored his bark, and found, on treading warily, that the ground was firm ; he then assisted his wife to land, and enjoined her to lie down beneath the tall ferns ; this done, and having commended them to the protection of heaven, he hastened back. The small stock of wearing-apparel was as hastily concealed in a narrow fissure of the rock, from whence gushed an ample stream, and the distaff thrown into a well. Scarcely, however, had the ferryman returned to his cottage beside the river's brink, than a company of Danes rushed in. But him they hurt not, for they

knew that the ferryman could do them service, and the surrounding country offered no inducement to remain. During the whole day, and partly through the night, did Osmund row backwards and forwards across the river, ferrying troops of those fierce men, who fled from the avenging arm of Alfred ; and when the last company was put on shore, you might have seen Osmund kneeling beside the river's brink, and returning heartfelt thanks to heaven for the preservation of his wife and child.

Often, in after years, did Osmund speak of that day's peril ; and his fair child, grown up to womanhood, called the tall fern by her father's name. And not only was it called Osmund, from love to him, but Royal also, that none, in passing, might forget to pray for the good king who delivered his country from the cruel aggressions of the Danes. Often, too, when years had silvered his once dark locks, did Osmund sit on the old stone beside his cottage, with his grandchildren round him, telling them about the cruel Danes, and how their mother, when a young child, was con-

cealed in the great fern-bed. "I love to look upon that bed of ferns," he said, "and to think of Him who gave them to us, as a hiding-place, when there was no other within reach: even as he concealed his servant of old from the face of the cruel king who sought his life. When I am gone, children, and your parents too are called hence, never forget, in looking at the Osmund royal, the goodness of your Heavenly Father, without whose watchful care your mother and yourselves might have been the slaves of some fierce sea-king. Methinks that whoever cuts the root obliquely may see my heart depicted within that blessed fern."

The green spleenwort told of a restricted locality. Very limited is my range, she said;—confined in England to her northern counties; in Ireland to one solitary mountain, Ben Balben; while my brother, the common spleenwort, is found in almost every locality, from rocks and ruins to mossy banks and hedge-rows. I bring to mind that wonderful arrangement of the vegetable kingdom, which assigns to every plant its place of growth. Men, in looking at me,

may do well to meditate on the order that exists throughout creation ; on the wondrous combination of undeveloped causes, which renders one fern scarce, another common,—which restricts the wind from scattering, or the soil from cherishing, such species as may not thrive beyond their allotted precincts.

My brother, on the contrary, is a citizen of the vegetable world. Old Gerard wrote concerning him, in ancient days, that “he growethe plentifully upon old stone walls and rockes in dark and shadowie places throughout England ; especially upon stone walls by Bristowe, as you go by St. Vincent’s rocks, as likewise about Bathe, Wells, and Salisbury, where I have seen great plenty thereof.” Newman, in later times, says that few places are without that graceful fern. He found a colony growing in such profusion on a bridge in the valley of the Wye, near Bualt, as to form a continuous covering of green, beautiful to the eye and seeming to invite the pedestrian to sit down awhile on the old bridge, and consider what lessons of wisdom and deep skill, and

wondrous beauty of effect, may be learnt from the humblest fern, and is developed by the reflecting or refracting such rays of light as visit his lone resting-place.

“ My place is not where art exults to raise the tender flower,
By terraced walk, or deck'd parterre, or fenced and sheltered bower,
Nor where, the straightly-levelled walks of tangled boughs between,
The sunbeam lights the velvet sward, and streams through alleys green.

My dwelling is the desert heath, the wood, the haunted dell,
And where the wild deer stoops to drink beside the mossy well,
And by the lake with trembling stars bestud when earth is still,
And midnight's melancholy pomp is on the distant hill.”

Hollings.

Listen, said the scaly hart's-tongue, I too can speak of a prescribed range. The Emerald Isle, where my brother, the lordly bracken, grows profusely, does not own me; in Ireland I am rarely seen; throughout this country only in the south-western counties. My natural habitat is the fissures of dry rocks, or walls, for my brown and scaly roots possess the property of readily penetrating through the smallest opening. Hence, our tribe are seen on the bold

fronts of high and beetling crags, far above the reach of even adventurous school-boys, who long to rob the nest of the sand-marten, often our sole companion. Those birds go forth in quest of food, but we must remain stationary. Yet the elements befriend us—dews and summer showers, winds and sunbeams; and we have within us a wondrous, yet beautiful machinery, by means of which we derive benefit from each. When the sunbeams visit us, we obtain greenness for our leaves; when the rain, such moisture as we need; when the wind, whether a gale or zephyrs, that degree of exercise which all plants require in order that the sap may freely circulate.

Those who visit the beautiful solitudes of Dovedale or Cheddar, or linger beside a rock on the road between Bangor and Carnarvon, may see us in all our pristine grace. Associated, too, with many a site of historic interest, we are often gathered from the walls of Ragland Castle and Tintern Abbey, and preserved as memorial plants. Young botanists will journey far to pluck us from

the old walls of Winchester, or from among the heaps of ruins that surround the banquet halls of Ludlow, where Milton first recited his immortal "Comus."

Others of our tribe embellish the wildest solitudes of nature. The rock-brake, or parsley, forms a cheerful and pleasing contrast to the dark masses of weather-beaten rocks, among which he loves to nestle; growing, it may be, occasionally in the crevices of old stone walls, yet preferring to take root on shapeless masses of stone, which project from among the heather. His favourite abode in England is the lake district of Cumberland and Westmoreland; in Wales, the Snowdon range; in Ireland, the Mourne mountains. Rare in Scotland, and, when found, only as a few scattered plants on old walls, or among such stones as time or whirlwinds have scattered at the base of mountains. Among such, yet nearly at the bleak and rugged summit of Ben Arthur, one who loves our tribe identified his locality.

Thanks to me, responded the wall-rue, for many a plea-

sant thought of far-off scenes, even in crowded cities. I resemble, among the vegetable tribes, those half domesticated species, the confiding sparrow and temple-haunting martlet, which love the dwellings of men, and skim over thronged streets, telling that spring flowers are seen in fields, and that the cuckoo is already come. Rocks and ruins are my native haunts, church walls, and ancient bridges, and yet I often deck the cottage roof, or such rough fences as enclose their gardens. The primitive wynch well, with its chain and bucket, allures me also; I grow thereon in company with the small purple snapdragon and white nailwort, looking down serenely on the clear cold mirror in which we are reflected.

You may find me in profusion on the walls of Greenwich Park, though covered with dust in summer; and those who like to associate memorial places with such plants as grow among them, may think of the wall-rue in connection with Arthur's seat, near Edinburgh. That stern spot, with its high rocks, fierce winds, and raging waters, was for

many years the only locality in which my relative, the forked spleenwort (rarest of British ferns) had found a resting-place. Since then, botanists report that the same fern has been found in Carnarvonshire; subsequently, in great profusion on a wall by the road-side, leading from Llanrwst towards Conway.

But not on walls only, ruins, and wild rocks, beside public ways, or mantling extensive moors, do ferns congregate. The sea spleenwort finds a home in the crannies of sea-cliffs, or in the gloomy recesses of marine caverns; their rough and quarried roofs being often mantled by its aid with a luxuriant vegetation. Nor less profuse of growth is the sea spleenwort on the heights of Teneriffe and Madeira; and the searcher after ferns may find this species rooted on a way-side rock, beneath the Turk mountain, that flings its dark shadow over the road from Killarney towards Kenmare.

Why is it, Stranger, that while the common polypody hangs in bright yellow-dotted tufts on cottage roofs, or

clusters around the stone-work of old wells, where children play, our brother the oak- or wood-fern, the most elegant among his tribe, is almost exclusively confined to wild and mountainous districts, and shuns the vicinity even of a solitary cottage? His haunts are places shaded by high rocks or thick foliage, where his black, wiry, and often creeping roots form not unfrequently a dense mass resembling net-work. Gather instruction, as the poet said, even from way-side weeds. The reason of this is obvious. Because in no locality, however lone, may this graceful tribe be wanting, either to beautify some sterile growing-place, or to afford a home to such small winged or creeping insects as nestle beneath their leaves. Hence, also, the brittle fern, that affects moist or mountainous districts, rooting in the fissures of rocks or the crevices of old walls, seems especially to delight in bridges, where it speedily becomes established, and looks down on the waters as they flow beneath.

The common polypody does, indeed, hang profusely,

with her bright yellow-spotted leaves, from the roofs of cottages, or around the low stone fence of the old wynch well,—answered a soft voice. Yet not there alone; but on stone walls and rocks, where we oftentimes succeed crustaceous lichens and small mosses. Wherever a space, however scant, admits of taking root, be it on walls or rocks, church towers or old bridges, there are we; diversifying likewise the rugged stems of many an aged tree, or the half-decayed stumps of hazels and whitethorn bushes, with a graceful canopy of leaves. The grey owl often brushes among us, when entering her hollow in the tree; and many a woodpecker owes to us a pleasant screen for her young ones, from the hot beams of the summer sun. Look up; you may see us, waving as if in triumph, on the fork of this tall beech; here we shall remain, unchanged by the change of seasons. Leaves will grow russet, and fall profusely to the earth; and such birds as sing merrily around us will depart for other climates; the wintry blasts will despoil their summer haunts, but our bright green

leaves will look cheerful when all else of summer verdure has departed; even in those dull close days which often succeed a sudden thaw,—

“When there is not wind enough to twirl
The one red leaf, the last of its clan,
That dances as often as dance it can,
Hanging so light, and hanging so high,
On the topmost twig that looks up to the sky.”

Coleridge.

We grow, on the contrary, in watery places, said a beautiful beech fern, that waved beside the torrent. We are peculiarly the fern of waterfalls: our roots are black and fibrous, and form oftentimes a complete net-work over the perpendicular face of rocks, within reach of the torrent's spray. Our delight is in such localities; for although bearing the name of beech, as if attracted exclusively to her roots, and haunting only forest walks, such are not our assigned localities. Rapid mountain rills and waterfalls, as those of Dartmoor, and the falls of Ogwin and Loch Catrine, attract us with a resistless power.

Our sister, the beautiful *Trichomanes speciosum*, is far away:—that graceful fern which delights in the fissures of damp rocks and walls, or the margin of eddying streams, when, rushing into old stone troughs, they again flow forth, and form for themselves a channel among rough stones. Wild are her haunts, amid the roar of waterfalls, in places where only the most enterprising among botanists would dare to venture. We hear of her as having fixed her abode on a rocky ledge projecting into one of the Killarney waterfalls,—a place so high and perilous in its approach, as to be gained only by leaping from one stone to another, amid the spray and roar of waters: by climbing also, for he who would adventure to gain the ledge, must ascend by the aid of interlacing roots and branches, till, having reached the platform, he sees the rare and beautiful *Trichomanes* nestling in her wild haunt, and extending over a contiguous rock; her dark green leaves drooping gracefully, and gemmed with sparkling drops, which often beautifully reflect prismatic colours;—while, on either side,

the wildly-wooded scenery, with its rocks and torrents, is worthy of the graceful fern that dwells among them.

Do not overlook me, said one, whose place of growth was lowly, beside the water. Hart's-tongue is my name, and, if it became me to speak in my own praise, I might say that none among my tribe are more graceful and pleasing to the eye. I am almost universally, though not abundantly, distributed; and even in my places of growth the naturalist does not always find me, as I love to hide in the thickest part of hedges,—growing, too, on walls and ruins. But my favourite haunts are old wells, because of their shade and dampness. Listen to what a poet has sung concerning me.—

“Lonely the forest spring. A rocky hill
Rises beside it, and an aged yew
Bursts from the rifted crags that overhang
The waters, cavern'd there. Unseen and slow,
And silently they well. The adder's tongue,
Rich with the wrinkles of its glossy green,
Hangs down its long lank leaves, whose wavy dip
Just breaks the tranquil surface. Ancient woods
Bosom the quiet beauties of the place,
Nor ever sound profanes it, save such sounds

As Silence loves to hear,—the passing wind,
Or the lone murmuring of the scarce-heard stream.”

Southey.

We come up, said the common brake, on every heath, and wood, and waste, throughout your fatherland ; grouping beside your pathways, and embellishing those healthy and windy ranges which the wild deer love. We shade many a green bank where the snowdrop looks forth from her green vest, on the streamlet edge, when the throstle begins her song. Not bursting forth in all our fulness, like the winter aconite, that suddenly emerges from out the damp, cold earth, earliest herald of the spring; but gradually unfolding and enlarging, and spreading forth our leaves simultaneously, as creation emerges from her winter sleep.

“ When bees are stirring, birds are on the wing,
And winter, slumbering in the open air,
Wears on his smiling face a dream of spring,”—

then it is that the bleak rock seems as if suddenly covered with extraneous verdure ; that dreary and exposed wastes,

among which grey stones lift up their lichen-covered heads, and a few dry bents wave wearily to the winter winds, look green and beautiful. The timid leveret loves to hide beneath our friendly canopy; the stone-curlew often hastes to us for shelter; the dusky lark commits to us her rough nest, formed of straw and leaves; and you may hear her soaring brother rise from out our midst, warbling, as he rises, with that wild and joyous melody, which swells, and sinks, and swells again, and seems as if it had nought to do with this dull earth;—which

“singing still doth soar, and soaring ever singeth,
Like an unbodied joy whose race is just begun.”

Hieroglyphics, too, have we, strangely pictured by nature's pencil on the cross sections of our rich brown roots. Many a school-boy spends his summer afternoon in culling ferns among the hills, wandering from heath to moor, from hill-side to ravine, delighted at the strange marks which our stems exhibit.

“ With hieroglyphics older than the Nile
The heavens are studded,”—

but not less old and wondrous are the hieroglyphics impressed within our stems. Linnæus gave us the specific name of *Aquilina*, fancying that our heraldic emblem resembled a spread eagle. Those who lived in the troublous times which preceded the Commonwealth, lurking, perchance, in our lone growing-places, beguiled their sad thoughts by cutting our stems obliquely, and called such tintings by nature's pencil “ King Charles in the Oak-tree.”

Strange legends are associated with our small tribe, said a faint voice, speaking from a tuft of moonwort; legends which still linger round many a time-hallowed spot. Our name, derived from the Saxon word *mund*, signifies strength, in allusion to our invigorating virtues; and those who examine the base of our stems, when spring is on the hills, may discover the rudiments of the next year's plant. Our leaves are crescent-shaped, bearing a close resemblance to the moon in her first and last quarter: and hence the

veneration with which men in the olden times regarded us, and the gathering of our symbolic leaves by village maidens, when the crescent moon was seen in heaven ;—

“ Then rapidly, with foot as light
As the young musk roes, out they flew,
To cull each shining leaf that grew
Beneath the moonlight’s hallowing beams.”

High hills and mountain pastures delight us most, though seen occasionally beside coal-pits and the rush of waters. Beautiful are we in our assigned localities, when dews and sunbeams are abroad, and cloud-shadows chase one the other over the greensward ; but far more beautiful when the moon, shining in her brightness, gives to the wide moor or upland pasture a character of vastness and extent, and when all sounds are heightened, whether of distant waters, or the moaning of night winds.

You will like to know, it may be, why our leaves were gathered in silence and in mystery. Because of their fancied resemblance to the moon. Seek for the origin of

this in Druidic times, when those who dealt in augury shunned the light of day, and, presiding either in caves or woods, performed each mystic rite beneath the beams of the planet they adored.

Emulating our stately brother, the royal moonwort or great Osmund, we carry our seeds on spikes, and are, in consequence, easily distinguished. With our brethren, on the contrary, the case is otherwise. Hence, ancient naturalists, looking cursorily on our tribe, and finding neither flowers nor yet seeds, conjectured that both were wanting. Their minds, prone to superstition, fancied that this obvious and natural peculiarity indicated some hidden mystery, and being unable to comprehend from whence proceeded the numerous scions that sprang around a parent stem, conjectured that, as the seeds were invisible, ferns possessed the power of rendering invisible whoever gathered them during the silence of the night. Youths and maidens, therefore, often sought for them, when dew lay heavy on the grass, and the pale moon looked from her station in

high heaven on the misty landscape ; then it was that many a footstep was impressed on the damp sod, stealing swiftly and silently towards our lonely growing-places. Legends, too, and those of no ordinary interest, linger around our tribe, whether growing on the rocks of Scandinavia, or beneath the shade of citrons and myrtles ; and hence the Eastern poet sang of ferns as emblems of secrecy and friendship.

With the passing on of years faded, as mountain mists before the dawn, somewhat of the mystery in which old botanists had enveloped us. Men, in later times, who loved our tribe and sought them in their native haunts, discovered a variety of dots or lines on the under-surface of our leaves, and, with this discovery, a truth came obviously on the mind. The seeds, they said, are thus arranged because of the sterile and storm-beaten places on which ferns often grow. But Legend does not readily relinquish her strong-hold, and the fancied power of rendering men invisible was transferred from the fern-plant to her small seeds.

Again the crowned prince of English ferns lifted up his voice, and spoke concerning his subject ferns. Beautiful are they (he said), and widely different in their habits from such as grow around : numerous, too, for the entire number of their species is calculated at about two thousand, of which thirty-six are pre-eminent in the British Flora.

Plants in general have their localities, but my subjects are seen everywhere. You may even find them towards the summits of high mountains, in company with a scanty and wiry kind of grass, skirting the snow-drifts, which, descending from still higher regions, have become frozen, and where those plants alone present the aspect of vegetation amid scenes of indescribable sterility. Others cling beside mountain torrents, or else ramble over the surface of dark rocks, and are seen through the clear veil of falling waters. Others, again, grow profusely among the spray of waterfalls, or where small streams, dripping from out some fissure in the rock, heighten the vivid beauty of contiguous mosses, and, falling on groups of fern, cover them with

sparkling drops. The black maiden-hair affects walls and ruins, moored not unfrequently in the crannies of beetling rocks, or waving in the stillness of yawning chasms, "where life and limb would be perilled to obtain her;" frequent also on old tombs, beneath which have reposed for ages all that remains of chivalry or beauty. You may not find the royal polypody on tombs, nor yet in darkling crannies of stern rocks, but rather on the summit of high mountains, such as Glyder-war, that hill of tempests, where scarcely any other plant can vegetate, swept over with resistless fury by the fierce tempests that contend for mastery; while his relative, the hairy polypody, is stationed on a moist black rock nearly at the top of Clogwyn y Garnedd in the Snowdon range of hills, facing the north-west, and rising precipitously above the lower lake. Linger in the same locality dwells that hermit-fern the marsh polypody, in a springy dell at the foot of Snowdon, near Llanberris, with its dark shadows and dripping rocks. Damp shady woods, or the side of hills wet with oozing streams, allure the heath

polypody : in the one, he thrives most where the shade is deepest ; in the other, he nestles among stones, cherished by the vapours that arise from his watery location : in both, emitting a fragrant scent which often reveals his place of growth.

The elegant and fragile lady-fern delights, on the contrary, to grow beside clear streams, where quivering lights and shadows dance on the green turf.

“ Where the copse-wood is the greenest,
Where the fountain glistens sheenest,
Where the morning dew lies longest,
There the lady-fern grows strongest.”

That graceful plant owns no companionship with dark sea caverns or dripping rocks, neither does she display her slight and feathery fronds where cold winds contend for mastery, or yawning chasms depress the mind with feelings of dread and loneliness. Her haunts are sunny banks, where bright waters well and ripple, and the wild bird poureth forth his melody.

Would you know something concerning our natural history? Seek such knowledge, not from books, but in the places of our growth. Listen to what the winds may tell you, warm sunbeams, and passing showers, for all minister alike, and shed a blessing as they pass. Think not that we are destined merely to embellish the solitudes of nature. We have each some allotted duty to perform; some place in the creation which no other may fill up. Homes are we, and storehouses, for sustaining insect life; for every insect, however humble, is assigned to some fostering plant, and that insect is essential in the mighty chain of being,—a small link, perchance, and yet, if broken, occasioning a chasm in creation which man, with all his boasted powers, could not supply.

Suddenly, and as if with a magic wand bringing hidden things to light, Chemistry appeared, and, touching the royal fern, thus spake:—

What see you, Stranger? A group of ferns waving in

the summer breeze, and reflecting the rays of light ;—much, too, of sylvan beauty, for the spot in which they grow is wildly picturesque. Men often stop in passing to admire. “Yonder group of ferns,” they say, “are beautiful, thrown off in light and shadow from the old grey rock ;” and thus speaking they pass on, unconscious that both the rock and ferns are mysteriously acted upon, and inseparably associated with those mighty agents, on the due equilibrium of which the weal or woe of the universe depends.

Laboratories are they, wherein chemical operations are continually carried on, both night and day, into which that deleterious gas called carbonic acid, and which is breathed out by men and animals, is mysteriously impelled, and so acted upon, that, when sent forth again, it renders the earth beautiful.

Ferns, therefore, in common with every leaf that quivers in the sunbeams, are small laboratories, in which changes are produced, and from which results become developed, that are all-important to mankind. Beautiful are they ;

useful, too, for life could not be sustained without them ; and without their wondrous chemistry, both men and animals would be suffocated by that deleterious vapour, which, although invisible, is continually ascending, or spreading like a low creeping mist upon the earth. But millions of small laboratories are stationed on every side, in leaves or wayside grasses, in ferns or mosses, or even in crustaceous lichens—throughout every modification of vegetable life, from the towering cedar to the creeping bramble, from the magnificent palm to the smallest daisy ; and thus is atmospheric air rendered fit for respiration by their united agency.

Another lesson may yet be learned from the harmony which subsists throughout creation,—from the active ministry of air and light, and the dependence of one plant upon another : a truth thus beautifully shown forth in the following elegant and original poem :—

“ There was fern on the mountain, and moss on the moor ;
The ferns were the rich, and the mosses the poor.

And the glad breeze blew gaily,—from heaven it came,
And the fragrance it shed over each was the same ;
And the warm sun shone brightly, and gilded the fern,
And smiled on the lowly-born moss in its turn ;
And the cool dews of night on the mountain-fern fell,
And they glistened upon the green mosses as well.
And the fern loved the mountain, the moss loved the moor :
For the ferns were the rich, and the mosses the poor.

But the keen blast blew bleakly, the sun waxed high :
Oh, the ferns they were broken, and withered, and dry,
And the moss on the moorland grew faded and pale,
And the fern and the moss shrank alike from the gale ;
So the fern on the mountain, the moss on the moor,
Were withered and black, where they flourished before.

Then the fern and the moss they grew wiser in grief,
And each turned to the other for rest and relief ;
And they planned, that wherever the fern-roots shall grow,
There surely the moss must lie sparkling below.

And the keen blast blew bleakly, the sun waxed fierce,
But no wind, and no sun, to their cool roots could pierce ;
For the fern threw her shadow the green moss upon,
Where the dew ever sparkled undried by the sun ;
When the graceful fern trembled before the keen blast,
The moss guarded her roots till the storm-wind had past ;

So no longer the wind parched the roots of the one,
And the other was safe from the rays of the sun.

And thus, and for ever, where'er the ferns grow,
There surely the mosses lie sparkling below ;
And thus they both flourish where nought grew before,
And both deck the woodland, the mountain, and moor."

CHAPTER IV.

OAK-TREE.

Quercus Robur.

“ It seems idolatry with some excuse,
When our forefather Druids in their oaks
Imagined sanctity.”

Cowper.

BEHOLD in me, said a stately Oak, one of those vast vegetable columns which owe their uprising to the quiet yet unwearied labours of a small sisterhood of lichens and bright mosses.

The rock from whence I sprang was bare and rugged, till they came, with loving labours, calling on the elements to aid them ; and forth from out the atmosphere hastened

such elements as cause the gradual decomposition of vegetable mould; and by their active ministry my acorn cradle, upborne by winds from out the far-off forest, found a resting-place prepared for its reception. Next uprose a gas from off the watery bed of yonder torrent, which flows now, as then it flowed, when not even the smallest sapling bent beside its waters, and, acting on the surface of the rock, began its work. Fissures were thus formed; and then came frost, garnishing, as with a magic wand, every shivering blade of grass and fern, till the coarsest herbage glittered to the wintry sunbeams, as if gemmed with diamonds; freezing such drops of water as trickled from the surface of the rock into its small fissures, and then, expanding them with giant strength, rent the strong rock itself asunder. For a mighty power was inherent in those rain-drops—small though they were, and such as an infant's hand might have brushed away—causing them to act on the calcareous and alkaline elements of stone, holding within them, as men speak, carbonic acid in solution. This came

up abundantly from the river that flows beneath me, collected by rain from out the atmosphere; and with them came a friendly gas called oxygen, winning its way into the sisterhood of lichens and bright mosses, nay, even into the rock itself; thus gradually destroying its equilibrium, and rendering fit for soil the hardest aggregate belonging to the globe.

Hence it happened, that scarcely had my tiny roots begun to penetrate the small deposit of vegetable mould, than masses were ruptured by degrees on either side of the ravine, and chasms opened in the solid rock. Other trees found in them a place of growth; and far as the eye can reach, on either side the river, are well-timbered glens and hollows, with bold masses of projecting rocks starting from their midst.

Small, therefore, was my origin, nurtured by viewless elements,—an acorn—a cup for babes to play with; but now a monarch of the forest, rising with umbrageous majesty among my tributary trees.

Consider my outward form, and hear concerning the inward mechanism by which that form progressed to perfection and is still sustained. First is the cuticle, or bark, smooth in youth, furrowed as years pass on, and furnished with pores through which both air and light may pass, in order to perform their active ministry. To this succeeds a green substance, called the cellular integument; next, the inner bark; and, lastly, the wood, diversified with a variety of concentric circles, each the growth of a single year, and designating, by consequence, my age.

The internal or true wood is hard, and often darkly coloured; the outer differs in appearance, and through this ascends innumerable vessels, which, becoming spiral in the leaf-stalks, ramify between the pulpy substance of the leaves. These vessels act as conduits for the moisture of the earth, which, being absorbed by the roots, rises through them into the leaves, and, after undergoing a chemical change through the agency of air and light, is brought back by another set of vessels down the leaf-stalks into

the wood, where it deposits the principal secretions in all trees.

Hence it is, that to my bark and roots, my leaves and acorns, different qualities are assigned; that my wood, though hard and tough, is flexible, adapted also for wainscoting and furniture, and that the highest praise which can be given to men of dauntless enterprise and valour, is to say that they have "hearts of oak." Hence, also, the chemist owes to me oak vinegar, with which to facilitate his experiments; the dyer, bark for tanning; the gardener, beds for producing artificial heat in pinneries; and while every variety of drab and shade of brown is afforded by my wood or bark, the scribe derives from such excrescences as grow upon my leaves, the blackest and most lasting ink.

Observe the dull green shrub that grows beside me, with its pendulous and lurid purple blossoms and black berries; that dull shrub is the deadly nightshade, a plant haunting, most generally, among old ruins and heaps of rubbish, in unison with places from which aught of human

gladness has long since departed. The whole plant is poisonous, inducing convulsions and a deadly stupor, associated, in consequence, with an atrocious instance of barbaric perfidy. Buchanan tells you, that, when Harold the Dane invaded England, in the days of Macbeth, and his brother Sweno made a descent upon Scotland at Fife, a battle ensued, and the Scottish monarch, after experiencing a signal defeat, fled to Perth, where grew abundance of the deadly nightshade. The monarch, having little of martial energy, entrusted the management of his affairs to his lieutenants, Banquo and the wily Macbeth; and while the former was secretly employed in raising forces, the latter negotiated a truce, engaging likewise to supply provisions for the hostile army. But the liquor, instead of being such as belonged to the land of Ossian, contained a deadly infusion of the nightshade: of this the invaders drank without suspicion, and, being quickly overpowered by the treacherous Scots, a few only escaped with their king.

Atropa, therefore, is the name given to this baneful

herb, in allusion to Atropos, one of the Fates, or Parcæ, who was fabled to sever the thread of life.

Men boast of their superior wisdom ; I hear them disputing beneath my branches concerning things which they cannot understand. But let them consider this wonderful phenomenon, and explain why it is that such a difference should exist between two vegetable productions growing side by side. We are rooted in the same soil, and the same sun shines upon us ; we are equally refreshed by the dew of heaven, and by the rains of the vernal season. And yet the moisture of the earth, received through the roots of each, becomes changed in its nature, and either in the bark, or leaves, or fruit, deposits secretions opposite in their effects ; one exuding a deadly poison, the other such secretions only as are beneficial in their results.

Consider, for a moment, the variety and beautiful arrangement of the cells and vessels, through which the sap, productive of such effects, freely circulates ; that, during a period, perhaps, of many hundred years, moisture is ab-

sorbed from the earth, and raised, by an inexplicable process, to the topmost boughs of some vast vegetable column, —becoming diffused through the smallest twigs, and either in the leaves, or bark, or flowers, preparing nutritious fruits, or else secretions beneficial to mankind; imparting, in its progress, greenness to each leaf, or beauty to each blossom, and causing even the smallest leaf that shines and quivers in the sunbeams, to become an organ of respiration to the parent tree; absorbing air, and purifying even the most obnoxious, and then breathing it forth again in a state fit for respiration. Wondrous, too, is the apparatus by which this threefold purpose is effected, and most curious is the mechanism that sustains each leaf in its right place, presenting its upper surface to the influence of air and light, and causing that gentle quivering in every breath of wind, and exquisite variety of mingling hues, which heightens the beauty of woodland scenery.

The prism has many sides, and the rainbow its many colours. All natural objects have their numerous asso-

ciations, and none, it may be, more than forest trees,—the oak especially, which carries back the thoughts of Britons to their remotest ancestors.

“When glance they back
To time-corroded chronicles of old;
When the fierce Briton pierced his winding track,
Through ancient forests, to his nightly fold;—
And Druid priests from memory’s book unrolled
A portion dire of horrid mysteries;
Aroused to deadly fray the warriors bold;
While the dread cry of onset, through the trees,
Full to the adverse band, swell’d, deathful on the breeze.

“There grew, irregular from nature’s hand,
Oaks of primeval stateliness, which cast
A thickening round of branches o’er the land;
And, bending, waved defiance to the blast.
Ages to them were playthings, for they pass’d,
And others found them flourishing;—man’s life
May well be deemed as nothing;—nations vast,
Arts, dynasties, and language, may grow rife,
And sink, ere they submit to time’s o’erwhelming strife.

“Oh, could imagination paint the scene,
Of those gigantic patriarchs of the wood;

And how they clustering joined the deer to screen,
Or curved in ranks, or solitary stood ;
Methinks the prospect should inspire a mood,
To contemplate and worship Him, whose mind
Stirs in the still and night-like solitude,
Or breathes in whispers on the gentle wind,
Though vast cathedral groves—and leaves a calm behind.”

Artists divide European trees into four distinct classes:—
the round-topped, as the oak and elm, the chestnut, willow,
ash, and beech ; the spiry-topped, which includes different
species of the fir tribe ; the shaggy-topped, comprehending
those of the pine ; and the slender-formed, as the Lombardy
poplar and the cypress.

I stand foremost among these,—foremost both in dignity
and grandeur ; pre-eminent, like the lion among animals,
or as the eagle among birds. Beauty united with strength
is everywhere developed : my leaves, elegant in their outline,
are strongly ribbed, and firmly attached to the branches,
which, although individually slender and excursive, are bold
and determined in their aggregate ; while the abrupt and

tortuous irregularity of the massive boughs that start from my giant trunk are strongly contrasted with the density and richness of my luxuriant foliage.

Who has not read concerning the oaks of Dodona,—those ancient trees which encircled a temple dedicated to the Pagan idol Jupiter, fabled to form words of augury, when the wind, gently whispering among their branches, caused the leaves to strike one against another ;—that old wood of Imarus, with its rushing stream, which, as poets sing, had power to light the torch that touched its clear waters, flowing in their fulness at deep midnight, but scant and low when the sun was high ; where cooing doves answered from out the trees, and strange responses were heard from solitary caves ? And thus, throughout all ages, men have fabled that trees could speak, and thought them worthy of double honour. But the oak has ever been pre-eminent. Poets have sung concerning me, from the earliest periods in this world's history. The Greeks bestowed upon me appropriate honours, and from the smallest of my twigs were

composed the Roman civic crown. Nuptial processions were graced with my boughs, and men carried them on commemorative days as emblems of victory.

Time was when my acorn was impiously placed by lawless men in the British crown, in order to supersede the cross, which had presided there for ages. And yet, though reckless in itself, methinks that strange act seemed as a presage that the tree which bore such fruit was destined to shelter England's king from the fury of rebellion. Hence it is that my boughs are waved in triumph on the twenty-first of May.

My leaves are also conspicuous in the order of the Iron Cross,—an order instituted by the late king of Prussia, to commemorate the struggles, and oppression, and, at length, the triumphs of his country; commemorative also of that noble-hearted woman, whose memory is held dear throughout its length and breadth.

Three of my largest leaves were placed in the midst of the iron cross, designed to show, by this arrangement, the

necessity of union among all classes ; and that, further, union constituted strength. Three divisions of society were likewise typified, namely, the productive, the defensive, and those who rule in church or state ; while the cross, which all Christians are called manfully to fight under, and to bear without respect to birth, or fortune, or talent, was a suitable emblem of an order that embraced every class of the community.

I have said, that ancient poets, equally with those of modern times, sang concerning me. The former even attributed to oak-trees, not only a vegetative power, which imparts eternal duration, but they conjectured, that, in common with all forest trees, they were indwelt by dryads and hamadryads. Some such, they sang, loved to haunt the green-wood shades, and to wander by clear streams, or, looking tranquilly from their fostering trees, passed a dreamy existence in listening to the soothing sound of winds among the leaves. Others, on the contrary, and such especially as inhabited our stately trunks, imparted to

us somewhat of their own prescience, with regard to natural things, and, thus instructed, they fable that we possess a degree of sagacity or foresight, which resembles instinct in animals and birds. Hence we discover beforehand the coming round of seasons; flinging forth our leaves, and blossoms, and moving our vast branches, according to the course of winds; stretching them forth, or seeming to contract them, now lifting them towards heaven, and again drooping them earthward, as the snow is about to fall or melt.

Thus have poets fabled; yet not only has the poet ascribed to us due honour, but the painter selects from us those tablets on which he embodies his imperishable thoughts. Listen to one of those wild legends, which originated in sunny Italy, but which a German enthusiast has thus recorded.

An aged recluse dwelt in one of the loveliest valleys among the Apennines. His young days had passed in foreign lands, and much sorrow had been his lot: he had

suffered shipwreck more than once, and fought on battle fields; and when he at length returned to his native country, a weary and war-worn man, few remained to welcome him. It is recorded that he sat down on the wayside, one day, sorely depressed and weary, taking counsel with himself concerning the best course he could pursue. At one moment he half inclined to recommence the wandering life which he had hitherto led, because of his lonely condition; at another, he looked over the smiling valley, where he had played in childhood, and thought that he should like to rest among his kindred. Thus thinking, he resolved to erect a small hut, in a wild spot, where he used to gather nuts with his young companions, and where gushed forth one of those impetuous torrents that water Italy, and render her country fruitful.

The place was beautiful, yet lonely. A noble tree shaded the dwelling of the recluse, and birds resorted thither at all seasons. The punctual nightingale came there, singing when all else were still, and migratory birds, with such as

remained stationary, made it their haunt or home. The recluse loved that tree, and bestowed upon it much of his attention: in sultry weather he often watered its dry roots from the neighbouring well-head, and in winter he scattered grain for the small birds which dwelt among the branches.

“I shall yet hear your songs, and see green leaves on my fostering tree, thought the recluse,” when he fed his feathered friends. “I know your voices; and when you sing, I seem to hear a chorus of grateful and rejoicing ones, who hymn the goodness of their Creator. And thou, noble tree, which hast sprung up to a commanding height, since I gathered nuts from off the hazels,—I understand the rustling and whispering of thy boughs; thou, too, art one of nature’s choristers.”

None remained of those who gathered nuts with the old man in boyhood; but their sons were grown up, and many of them would bring their young children in the summer evenings, to listen to his tales of hair-breath escape, or to

receive instruction,—for the recluse was wise and pious, and well knew how to impart both counsel and consolation to those who needed.

Among his most frequent visitors was Annette, the little daughter of a neighbouring vine-dresser, who loved the old man as if he had been her grandfather, and who often descended the rugged path that led from her father's cottage and small vineyard, to the valley where dwelt the hermit.

Winter among the Apennines is oftentimes terrible; and when snow begins to melt, the mountain streams are swollen till they become raging torrents, which carry everything before them. Such was the case during one terrific night; and when the father of Annette looked in the morning from his window, he exclaimed, "Alas! alas! the hermit must have perished; see how furiously the flood is raging through his valley: it has filled every nook, and in many places the topmost boughs of tall trees only are visible above the waters."

Annette cried as if her heart would break, and she entreated her father to go to the aid of the old man. "My child, I would go willingly," replied her father; "but it is impossible. See you not how the torrent is raging,—how it whirls that strong tree round and round?"

But the old man was saved, yet not by human hand. He was awoke from his sleep by the plaintive voice of one of those warning birds which had taken shelter in the branches of his favourite tree, and which utter their loud cries when storms of winds or tempests are abroad. He heard the rushing of the flood; and when he looked from the hut, he saw, by the clear light of the moon, that his situation was all but hopeless. Committing himself, therefore, to the protection of Heaven, he climbed to the top of his hut; and when the waters increased to where he stood, he caught hold of a drooping oak-branch, and gained the topmost bough of the friendly tree. Many a tree fell that night, "loud crashing, thundering down," and was borne away by the mighty torrents, like a reed broken with the

wind. But the oak stood firm ; and during three days and nights did the old man cling to its branches, exposed to the cold, and driving rain, with only a few crusts of bread, which he had taken with him.

At length, when the sky was clear, and the waters began to subside, the vine-dresser and his child went forth, to seek for the old man. "We may not hope, my child," said the father, "to find him alive ; but I trust that we may have the consolation of laying him beside his parents."

The flood had not yet left the valley, but the vine-dresser knew a path among the woods, which led to the hermit's glen. He walked warily, for the way was dangerous, verging occasionally on the edge of deep ravines, and rendered slippery by the late heavy rains ; he had, in consequence, sometimes to carry Annette, and always to uphold her with his strong hand. Thus went on the father and his child, the one looking carefully to his steps, the other carrying a small basket, containing a bottle of wine and some bread ; for notwithstanding her father's words, she clung to the hope

of finding him alive. And they did find him, lying exhausted on the damp muddy ground. When the water began to abate, he had descended to the roof of his hut; and when the earth appeared, he slid down warily, but his strength failed, and he fell.

The hermit joyfully partook of the refreshing cordial and the cake which Annette had brought; and when the father, having retraced his steps, obtained a boat and strong rowers, the old man was taken to the cottage of the vine-dresser, where he spent the remainder of his days.

“Blessed be thou, my child,” said the recluse in dying, “and blessed be thy husband and thy children. Be thou and they as the firm oak that upheld me, amid the strife of waters; may the dew of heaven descend upon you, and the summer sun visit you, and may the storms of life never prevail to overthrow you.”

The vine-dresser had been long dead, and Annette had become a wife and mother, when the old man was summoned hence. He loved to look on the noble tree from

his chamber window; and though the lord of the soil had marked that tree in his own mind, he would not allow it to be cut down while the hermit lived.

At length the tree was felled, and afterwards converted into wine casks that were purchased by the husband of Annette.

It chanced that one of the wine casks had been rolled, at the time of grape-gathering, beside the cottage, and Annette, having gone forth to enjoy the freshness of the morning, had seated herself, with her two rosy children, on a rustic seat, that overlooked her husband's vineyard, fondling the baby in her arms, while the youngest child gathered flowers among the grass. The green valley lay in front, and the hut was still standing in the far-off nook where dwelt the hermit; while Annette looked towards the spot, her eyes filled with tears, and gratitude arose within her heart, in thinking how the old man's blessing was fulfilled.

A stranger passed at the time, apparently absorbed in a kind of dreamy fancy. An image of the Holy Family

had long hovered before his mental view, but he had never been able to embody the beauteous vision; yet, full of the engrossing thought, he had set forth in that early morning ramble to collect his powers. The painter was Raphael, one of the greatest painters of his own or any other age.

In that mother and her children the artist found a reality which he had long vainly sought; and wishing, in the moment of inspiration, to secure the group, he felt for his sketching tablet, but found only a chalk pencil. Happily, the full beams of the now risen sun shone brightly on the smooth end of the cask, and the idea of appropriating it for the purpose had no sooner arisen, than it was adopted. Raphael sketched the lovely Annette, and her children; he took it out from the cask, and allowed himself no rest till he had completed his immortal picture of the Holy Family.

Three hundred years have passed over Italy since the time of Raphael, but the picture still remains, and has been preserved amid the fall of nations.

The strong oak ceased; and presently another voice

sounded feebly from a time-worn and hollow trunk, grey with pendent lichens.

Centuries have come and gone, the weak voice said, since a joyous, light-hearted squirrel, bounding in his gladness, dropped an acorn on this huge mass of stone. The acorn fell by chance into a fissure, around which had grown crustaceous lichens and bright mosses, leaving, in their decay and renovation, deposits of vegetable mould; and, thus nestling, the small acorn, striking his tiny roots downwards, held up his small leaves to the loving influence of rain and wind, till I arose from his midst, a sapling, alone upon the rock. But years passed on, and numerous trees, upspringing from my acorns, found their homes around me; and thus, on either side this mighty torrent, huge masses of granite rock, with their steep hollows of crumbling soil, are clothed with an aged wood, extending far as the eye can reach, and sweeping over hill and dale into the adjacent country. This wood has been a goodly hunting-place: animals of all kinds resorted hither,—the deer, the elk,

wild boars, and large white cattle of fierce aspect, ranged within its covert. The ancient Briton followed them with bow and arrow, the Saxon with his spear; men of mingled races hunted the tall deer in Bluff King Harry's days; and often, in the calmness of a summer evening, you might hear the buck-bell, when all else was still, save the whisper of wind among the branches and the roaring of the torrent at my base.

But now, aged and storm-ridden, my day of greatness has long passed. No longer a majestic tree, but nearly branchless and grey with lichens, innumerable agents hasten the work of demolition. Time was, when, standing in my strength, it would have ill become me to speak of weakness or decay; but now the case is different.

“My forest boughs,
That danced unnumbered to the playful breeze,”

the haunt of nameless nations, have fallen to the ground, and, borne by peasant children to their cottage homes, have

blazed and flickered on the hearth. Filaments of my strong bark, ingeniously formed into a kind of paper, were of old constructed into spacious nests by the mason bee; the hornet perforated my giant boughs, and reared her metropolis unbidden; the squirrel brought up her young family beneath the shelter of my branches; and glad birds paid me the tribute of their joyous songs in return for my protection. Beautiful round balls were often seen upon my leaves, resembling expanded rose-buds,—the nests of insects, who resorted hither, and elegant night butterflies spun their webs beside them. Time would fail me, were I to speak of the innumerable tribes that were sheltered within my bark, or nestled in its interstices; but now my leaves have faded, and decay has begun its work. A few storms more, and this aged frame will lie strewn beneath their might. Yet pleasant, amid my sadness, is the thought that some one may thus lament me:—

“Pride of the grove, and art thou down at last?

Oh, could not thy deep-rooted trunk avail

To stay the fury of the ruthless blast ?
Low here thou liest, and I thy fate bewail.
No longer shalt thou brave the wintry gale,
Nor in thy branching arms, and green array,
Shelter the feather'd tribes when foes assail,
Nor strew thy russet honours in our way
At autumn-tide. Methinks I see the day,
When he who mourns thy lot like thee shall fall ;
Nor does the thought his stedfast soul dismay,
Taught by repeated storms to bear it all !
Thou, prostrate tree, shalt never more rebloom,
But he shall rise in triumph o'er the tomb."

Millhouse.

The weak voice ceased, and another oak told his tale from the highest point of Great Whitby Hill. I too was an acorn once, a cup and ball of nature's making ; but I grew up a lordly tree, shading with my branches men of many generations, who came to rest beneath me,—woad-dyed chiefs of Britain, and their Saxon conquerors ; polished Romans, and ruthless men from Denmark ; but long before the cumbrous vessels of the latter neared the coasts of Wales, an aged man, bearing a pastoral staff, and wearing sacerdotal vestments, sat down beneath my shade.

With him were a company of grave and thoughtful men, strangers from a far-off land,—for they spoke of Rome and Italy, and concerning the savage people whom they came to visit. And then was seen another company of priests from Bangor, that city of holy men, where the faith planted by St. Paul still flourished, and from whence missionaries went forth to enlighten those who remained in darkness. They came to converse with Augustine,—for such was the stranger's name,—concerning matters of high import, as regarded their mutual faith; the one wishing to engraft on Christianity the observances of paganism, seeking by such appliances to allure the heathen; the others, making a firm stand, and determined to uphold, in all its purity, the faith which they had received from their fathers.

Since then changes passed over Britain. The forest fell around me; and where nought had been seen, except a mighty intermingling of waving branches, the peasant built his hut, and corn appeared in furrows. Gradually towns and villages overspread the champaign country, and parks and mansions

took the place of old baronial castles, with their portcullises and moats. Churches were erected, and many a small Saxon edifice, with its bell-tower, was seen among the trees; and causeways, made over swamps, often led from one stately dwelling to another, or else rendered some near towns accessible.

Yonder farmhouse, with its iron-barred door, its wide porch, and ruined moat, was once a place of no small consequence. A squire of high degree dwelt there; and I remember that his going forth to the meeting of the shire, on public occasions, was attended with considerable state. First came his heavy carriage, drawn by six long-tailed black horses, ponderous as the huge vehicle that slowly wended after them. They had hard work to draw it up the hill; and not unfrequently, stout yeomen, with spades and mattocks, followed through the deep miry lanes, in order to extricate the coach if needful. After this same heavy lumbering vehicle came riders, two and two, in handsome dresses of green and gold; for on such state occasions the

sons of the neighbouring farmers, who rented under him, were proud to wear the squire's livery.

Another race succeeded, who began to move quickly through the world: they caused the making of good roads, and galloped on them, getting over distances that would have taken a week to traverse during Squire Roachley's time, in rather more than a long summer day and half the night.

Next in order of succession came another race, with the propelling instinct strong within them. Hear you not a mighty rush, and a loud scream? Look narrowly, or else in one moment you will lose the sight. Here it comes, a huge, panting, fearful-looking monster—a thing of flame and smoke—an embodying of man's unquiet yearnings, having winged iron feet and glaring eyes, and seeming to send forth sparks of fire from its nostrils: a symbol, methinks, of the hurrying and unquietness of the days wherein I begin to fail.

Yet still my branches breast the storms of winter, and

uphold a weight of snow ; and in spring the stock-dove finds, with his mate, a safe covert among my light green leaves, when returning to his ancient haunts.

Salvator Rosa made great use of old trees. He liked to contrast them with young saplings. Their gnarled boughs and grey trunks looked well in the wild scenes, in depicting which he so much excelled. Methinks I should have been chosen among many, because, although my youth has long since waned, and somewhat of decay is visible in the lessening of umbrageous majesty, rather than in actual decrepitude, my strong arms are grey with lichens, and my ash-tinted bark is only seen at intervals among the various mosses that have struck their tiny roots in the interstices. Observe the bright green velvet moss that has stationed itself around my roots. Brimstone-coloured lichens succeed, and extend far up the trunk : some are smooth and spreading, and seem imbedded in the bark ; others are rough, and hang in small rich knots and fringes ; and with these are intermingled a pure white

lichen, beautiful in the contrast which it presents, and yet denoting that the vigour of the tree is about to fail. Different kinds of mosses also congregate upon the bark : some dark green, others of a rich brown hue and nearly black, others of a dingy orange, others inclining to red, and even to bright yellow, resembling gleams of sunshine. In this brotherhood of parasitic plants, different species blend with one another : the knotted brimstone-tinted lichens cling to an ash-grey species, as the black saucer-lichen, with its broad fringes, is contiguous to a scarlet peziza : thus giving to my rough and furrowed trunk a peculiar character of sylvan beauty.

Old men like to converse with one another. You may see them in sunny weather, beneath the shelter of some aged tree which they have climbed in boyhood, talking of past days, and those, perchance, who are resting beneath the shadow of the old grey church. Would that the old memorial oaks of Britain could thus meet together, each with his word of wisdom or narratives concerning ages,

of which the great events alone stand forth in dim obscurity, like blocks of granite among the glens and undulations of Dartmoor.

Dartmoor has its oaks, old, dwarfish from long years, bald with dry antiquity, memorials of days long past, telling their sad tales of forgotten men.

Immense masses of granite lie scattered in all directions, and in their midst, either growing among them, or else seeming to spring from out their interstices, arise, wildly and widely scattered, a grove of dwarf oak-trees. Exposed to the continual action of bleak winds, which rush past their sterile growing-places, and, perhaps, deprived of the stately trees which might have screened them from their fury, they are very diminutive. Few, if any, are more than ten or twelve feet high, but, though stunted in their growth, their topmost branches spread far and wide, twisted in the most fantastic manner, and festooned occasionally with ivy and creeping plants. Their trunks are so thickly covered with fine velvet-looking moss, that they seem of enormous

thickness in proportion to their height ; but such is not the fact, their apparent size is occasioned merely by the rich coating that envelopes them. He who looks upon those stunted trees, in their utter desolation, is impressed with the thought of extreme age in the vegetable world. He remembers, too, those groves in stony places, of which the Scriptures speak, as dedicated to Baal and Aseroth. An ancient place is that same old wood, preserving the remembrance of idolatrous rites and observances, and upon which still seems to rest somewhat of the curse that was pronounced on such unhallowed places. Serpents hiss there, the shepherd does not make his fold there, and the bittern screams amid its desolation. The stranger who is wearied with the toil of climbing the rocky pathway that leads to Wistman's Wood—for such is the place called—may not sit down to rest on the immense masses of granite around and beneath the trees, cushioned though they be with the thickest and the softest moss, lest he should disturb a nest of adders. “’Tis a wisht old place,

sure enough, and full of adders as can be," said Farmer Hanniford to Mrs. Bray, the historian of Dartmoor, when he assisted her to climb the pathway to Wistman's Wood. But, though stunted in their growth, and covered with ivy, turning, too, from the winds that continually assail them, the old oaks are by no means without foliage; their leaves are of the usual size, but the acorns that cover them in autumn are very minute.

Thus, then, stands Wistman's Wood, alone in its desolation, with its dwarf and misshapen trees, upheld amidst the rudest storms, and on one of the wildest spots in Dartmoor;—a relic of the great forest that anciently covered many of its glens and eminences, and which is conjectured to have been set on fire in order to displace the wolves that used to harbour within its covert. But the haunting birds, the birds of omen, that were held sacred in the estimation of the Druids, still linger around the relics of that ancient wood.

Those trees can tell in the ear of reason strange histories

of Druidic times, concerning logan stones, and cromlechs, and small stone huts where dwelt your remotest ancestors, —that the arch-Druid used to go his rounds, and that on nights of unhallowed solemnity a white bull was sacrificed, and mistletoe was cut from oaken boughs with a golden sickle.

The Greendale oak, near Welbeck, and his brother of Cowthorpe, near Weatherby, with the patriarchal tree of Broomfield Wood, and of Earl Powis's park, near Ludlow, equally with those of Needwood Forest and Blithfield Park, of Fredfield and Panshanger, speak concerning their vast growth, and the bulk of timber they contain. In Salcey Forest stands that venerable tree which, although no chronicler of past events, worthily demands respect from all who pass. That tree has sheltered many generations of confiding birds; it has showered myriads of acorns from its good green boughs, and some, which the squirrel has buried for his winter store, and then forgotten, have sprung up, and furnished timber for large ships. Your Saxon ancestors pastured their hogs in

forests, and fattened them on the acorns ; and in ages past you might have seen the grunting brotherhood repairing to the oak of Salcey, as to a storehouse, for their daily food. Other oaks grew round, but none of equal magnitude or so rich in acorns,—and this they well knew ; even now, though the oak is failing fast, and scions are grouping round, you may see a few of those restless creatures, when, having left their styes in the neighbouring farmyards,

“ From oak to oak they run with eager haste,
And wrangling share the first delicious taste
Of fallen acorns, yet but thinly found,
Till the strong gale have shook them to the ground.
It comes, and roaring woods obedient wave ;
Their home, well pleased, the joint adventurers leave :
The trudging sow leads forth her numerous young,
Playful, and white, and clean, the briars among,
Till briars and thorns, increasing, fence them round,
Where last year’s mouldering leaves bestrew the ground ;
And o’er their heads, loud lash’d by furious squalls,
Bright from their cups the rattling treasure falls ;
Hot, thirsty food : whence doubly sweet and cool
The welcome margin of some rush-crowned pool.”

Bloomfield.

Alas for the Abbott's oak at Woburn ! No pleasant thoughts of sylvan majesty, nor abundance, nor yet of singing-birds, nor herds of grateful creatures pasturing beneath its branches, are associated with that lone tree. Near three hundred years have passed since Roger Hobbs, Abbot of Woburn, together with the Vicar of Paddington, were hung upon its branches, by order of Henry VIII., for refusing to surrender their sacerdotal rights ; yet still the old oak stands ; but few even of the most intrepid youths will pass thereby when night broods over its venerable head, and the startling whoop of the solitary owl is heard from amid its branches.

Who has not heard concerning the Shelton oak, near Shrewsbury, called the " Grette oak," in 1543, traditionally believed to have served the "irregular and wild Glendower" for a post of observation previous to the battle of Shrewsbury ?—concerning, also, the Queen's oak, at Huntingdon, beneath the shade of which Queen Elizabeth is said to have shot a buck with her own hand, while

Lord Hunsdon stood beside her with his gallant array of huntsmen?—of Sir Philip Sidney's oak at Penshurst—

“A goodly tree, which stands the sainted mark
Of Sidney's birth;”

and those of giant growth, Gog and Magog, in Yardley Forest, the one measuring twenty-eight feet at three feet from the ground, and containing fifty-eight feet of timber; the other of still more imposing dimensions, though not of the same bulk, yet equal in majesty and fulness of timber to the oak of Wallace, which stands at Elderslie, near Paisley, within sight of the parental home of that patriot hero, and where he first drew breath?

Other noble trees have gradually disappeared, and form subjects for history or tradition. Such is the venerable oak which stood in the Water-walk of Magdalen College, Oxford,—a notable tree when the college was founded in the middle of the fifteenth century;—a magnificent oak, also, dug out of Hatfield Bog, the largest ever known in

England, and which exceeded in magnitude even the famous larch, that was brought to Rome in the reign of Tiberius, as recorded in Pliny's 'Natural History ;'—and the tree against which the arrow of Tyrrell glanced in the New Forest. This tree, memorial of the death of Rufus, which has fallen to decay and is replaced by a stone monument, presented a remarkable natural phenomenon, similar to that of the Glastonbury thorn, and the Cadenham oak, near Lyndhurst, in the New Forest: namely, that of being distinguished for more than two centuries for budding every year in the depth of winter, and, according to the testimony of the foresters, on old Christmas day, and then only. Notwithstanding the robust character of this kind of forest tree, and its proverbial strength, it is materially affected by the different strata through which the roots penetrate; and on this principle only can we account for the striking diversity that is frequently apparent, both in the season of leafing and the colour of the foliage.

Lastly, among such as have been great in their day of power, is the Raven oak of Wolmer Forest.

In one of those wild and secluded spots that verge on its precincts, stood a grove of oaks of peculiar growth and great value; they were tall and taper, like firs, but, standing near together, they had only a little brush, without any large limbs. Those who knew the value of this kind of tree, spoke of them as yielding the finest timber, but, to the eye of the painter or the poet, there was nothing to admire in the tall and unvaried columns. One tree, however, grew in the centre of the little grove, which many resorted to, on account of its great antiquity, and which, although partaking somewhat of the character of those who stood around, in its height and shape, bulged out into a large excrescence about the middle of the stem.

Ponderous and stately stood the firm old tree,
'Mid that thick grove; where, ivy-twined and grey,
The brotherhood stood round, with lichen tufts

Depending from their boughs, which up and out
Fantastically grew, and made a gloom
E'en at the cheerful hour of bright noonday.

This oak was called the Raven's tree, because a pair of ravens had fixed their abode there for many years, dwelling in conscious security on account of the natural bulwark by which all access to their eyrie was prevented. School-boys resorted there from one generation to another; grandsires told the striplings of the days in which they lived, how their fathers and their fathers' fathers had sought to climb the raven tree, in their boyhood's sports, and how continually they had been foiled; but such narrations only served to excite the ardour of those to whom they were addressed. Many attempts were made in consequence: each was anxious to succeed, and vainly hoped to achieve the enterprise in which his father had been disappointed. But when arrived at the huge excrescence, it jutted out so far beyond their grasp, that the most daring lads confessed the undertaking to be too hazardous. The ravens

accordingly built on, nest upon nest, in perfect security. Wistful looks were turned upon them, and hats were thrown up to frighten them in the performance of their duties ; but they heeded neither the one nor the other ; and it was amusing to see how soon the young birds hopped upon the branches in equal fearlessness, while they looked down on the impatient truants beneath. At length the fatal day arrived, when several workmen were seen coming towards the wood. They carried hatchets in their hands, and with them came empty waggons and strong horses, for the conveyance of timber. The old bridge at the Toy, near Hampton Court, needed reparation, and for this purpose trees were required fifty feet in length, without branches, and measuring fifty inches at the taper end. Such trees the grove contained, and an order was given in consequence for felling them. The trees were not yet in leaf, for it was early in February ; but the hardy raven prefers to build her nest, and to sit, in this cold month ;—perhaps some peculiar kind of insect

food may be plentiful at the time of hatching, or else, not heeding the rain and pinching wind of the early season, she wishes to bring up her young in habits of hardihood and recklessness of cold. The saw was applied to the oak, and wedges were inserted into the opening; the forest echoed to the heavy blows of the woodman's hatchet, and the tree nodded to its fall, but still the dam sat on. At length a crashing sound was heard, and down it came, upheaving the earth beneath, and burying its lofty head in the deep soil. The poor bird was flung from her nest. She might have escaped at the first, for no one wished to injure her, and even the rough workmen pitied her, as they saw the anxious look which she cast at them from time to time; but she would not move even when the tree began to topple amid the din of their heavy blows. Down, then, it came, with a crash that made the forest ring, and the poor bird, being struck by the twigs, was brought to the ground.

LAMENT FOR THE RAVEN.

“ Poor bird, the year’s mild cheering dawn
Upon thee shone, a momentary light ;
The gales of spring upbore thee for a day,
And then forsook thee. Thou art fallen now,
And liest among thy hopes and promises—
Beautiful flowers, and freshly springing blades—
Gasping thy life out. Here for thee the grass
Tenderly makes a bed ; and the young buds
In silence open their fair painted folds :
To ease thy pain, the one ; to cheer thee, these ;
For thou art restless, and thy once keen eye
Is dull and sightless now. Just budding boughs,
Needlessly kind, have spread a tent for thee.
Thy mate is calling for thee to the white-piled clouds,
And asks for thee. No answer give they back.
As I look up to their bright angel faces,
Intelligent and capable of voice
They seem to me. Their silence to my soul
Comes ominous. The same to thee, doomed bird,
Silence or sound : for thee there is no sound,
No silence. Near thee stands the shadow, Death ;
And now he slowly draws his sable veil
Over thine eyes ; thy senses soft he lulls
Into unconscious slumbers. The airy call

Thou'lt hear no longer. 'Neath sun-lighted clouds,
With beating wing, or steady poise aslant,
Thou'lt sail no more.

I needs must mourn for thee ; for I—who have
Nor fields, nor gather into garner—I
Bear thee both thanks and love, nor fear, nor hate.
And now, farewell ! The falling leaves, ere long,
Will give thee decent covering. Till then,
Thine own black plumage, which will now no more
Glance to the sun, nor flash upon my eyes,
Like armour of steeled knight of Palestine,
Must be thy pall."

CHAPTER V.

BEECH-TREE.

Fagus sylvatica.

This stately tree grows on the sunny hill's side,
And merry birds sing round it all the day long.
Oh, the joy of my childhood at evening-tide,
To sit in its shadow and hear the birds' song !

A STATELY beech, pre-eminent in sylvan majesty, told
concerning her own state and dignity.—

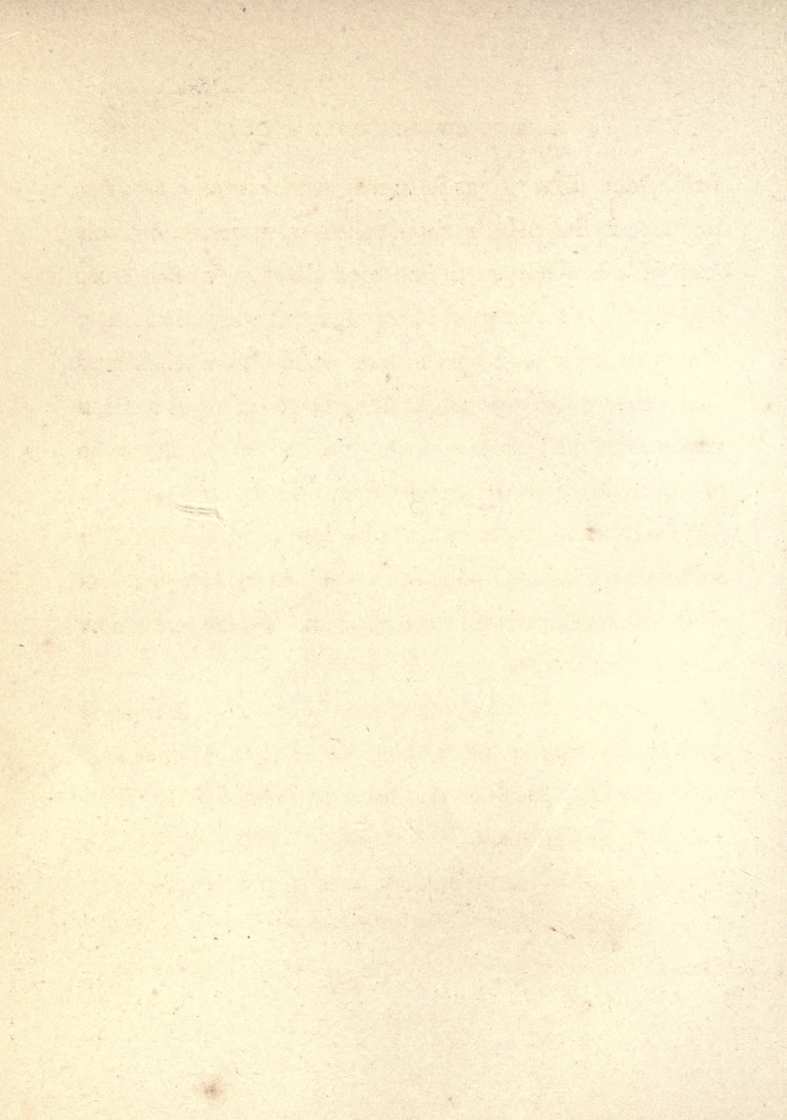
Music breathes from me, she said ; my numerous and
spreading branches, at one time aspiring in airy lightness
above the general mass of foliage, at another, feathering
to the ground, are the haunt of innumerable birds. You



W.F.del et lith.

R.B. & R. imp.

BEECH.



may hear them, in the stillness of a summer evening, pouring forth their sweet, mellifluous tones,—first one, then another,—when twilight is on the hills, or as yet the day has scarcely dawned. Summer winds, too, how nimbly they come and go, causing that gentle rustling among the leaves, which sounds in accordance with the rushing of yonder rivulet! Nor is the hum of bees wanting in this lone spot, although no cottage homes are near, nor yet bee-gardens, with their broad hedges of honeysuckles and sweet briars. Bees revel in my fragrant flowers, and their humming sounds, with birds and winds, make one of nature's concerts.

Every tree has its peculiar characteristics. Majesty is developed in the oak, gracefulness in the ash, an undefined sense of beauty in the birch; mine is cheerfulness. Even my wood, the favourite *bois d'andelle* of Paris, produces a clear and lively fire; and the maker of musical instruments obtains from my trunk materials for his sounding-boards.

Those who visit the places of my growth, rarely find either ferns or grass beneath my shade; but instead of these, soft moss, with here and there the ladies' slipper-wort, and that fragrant parasitic plant, the bird's-nest twayblade, which takes root wherever a wandering sunbeam can make its way. And far as the eye can reach often extend tall columns, such as have braved the storms of ages, covered with grey lichens or tufts of moss, in which the dormouse loves to nestle; such, on the contrary, as have sprung up long since those patriarchal trees first rose from out the earth, beautifully harmonize, in their smooth and silvery bark, with the splendour and delicacy of their foliage.

No other bark equally allures the young enthusiast to carve thereon the name of his beloved. A propitious emblem, too, it seems, for he sings while thus employed—

“As the letters of our names increase
So may our love.”

Enthusiasts in all ages confided their thoughts to trees,

even before Virgil sang, or Shakspeare haunted the wild wood ; and many a tender thought would have been transmitted to posterity had men possessed the power of embodying them. Customs which naturally originate from the feelings of the human heart must ever have prevailed, whether among groves of olive beneath Italian skies, or in the deep beech-woods of your fatherland. Poetry has, also, its imperishable associations, and many a lone tree awakens those deep emotions which are kindled whenever memory recalls the creations of poetic genius. How appropriate, therefore, the elegant effusion of one of your own poets, when, wandering in this ravine, he thus personified a noble beech, which the wood-ranger had marked with his axe :—

“ Thrice twenty summers I have stood
In bloomless, fruitless solitude,
Since childhood in my pleasant bower
First spent its sweet and sportive hour ;
Since youthful lovers in my shade
Their vows of truth and rapture made,

And on my trunk's surviving frame
Carved many a long-forgotten name.
Oh ! by the sighs of gentle sound,
First breathed upon this sacred ground ;
By all that love has whisper'd here,
Or beauty heard with ravish'd ear ;
As Love's own altar honour me :
Spare, woodman, spare the beechen tree."

Campbell.

Men in old time thought it little less than sacrilege to cut down a tree ; and hence General Spinola commanded his army not to injure the woods that belonged to the Prince of Orange, although his enemy ; Xerxes, in like manner, passing through Achera, would not suffer a tree to be despoiled. But now the case is otherwise. The woodcutter, even, in this wild spot, with its rushing waters and majestic foliage, walks leisurely from tree to tree, measuring their girth, and seeming to consider whether or not they may remain till another year.

Surely the air of cheerfulness that pervades the family of beech, and the readiness with which they adapt them-

selves to the sternest localities, must have occasioned the wood to be selected for purposes of festivity. "The beechen bowl, the beechen bowl," has been eulogized by many a rustic poet, both in ancient and modern times. Of old, the *vasa vindemiatoria* and *corbes messoriae* were made with the rind ; at the present day you may see young children on the common that skirts the ravine, gathering wild strawberries into little pottles wrought in like manner.

All lovers of woodland scenery maintain, that no tree is more beautiful when standing in parks and pleasure-grounds, with numerous and spreading branches, either aspiring in airy lightness above the general mass, or else gracefully feathering to the ground. But in woods, as already noticed, our brotherhood grow clear of branches to a great height, and hence, as sang the poet,—

"There oft the muse, what most delights her, sees,
Long living galleries of aged trees,
Bold sons of earth, that lift their arms so high,
As if once more they would invade the sky.

In such green palaces the first kings reigned,
Slept in their shade, and angels entertained ;
With such old councillors they did advise,
And, by frequenting sacred groves, grew wise."

Waller.

Would you, however, wish to see the beech in its greatest perfection, visit the Frankley beeches in Worcestershire, conspicuous for many miles, and which, when seen from low ground, exhibit a preternatural magnitude in the distant horizon, seeming to enlarge upon the eye, and to stand as martello towers to guard their brethren from the cold bleak winds of winter. Dry, chalky, or limestone heights are our favourite resorts ; and hence we attain to a great size upon the hills of Kent and Surrey, as also on the steep acclivities of the Cotswold and Stroudwater hills in Gloucestershire, and on the banks of the Wye in Herefordshire and Monmouthshire. Strutt speaks of a noble tree in Knole Park, measuring one hundred and five feet in height, and twenty-four feet girth at three feet from the ground, containing four hundred and twenty-eight feet

of solid timber. Linnæus speaks also respecting a majestic tree, at about our extreme range northward, which was called the Twelve Apostles, from the trunk having divided into as many stems. The names of Charles XI. and XII. of Sweden, and that of Queen Eleanora, were inscribed on the bark, with those of distinguished persons who had stood beneath its shade.

I have mentioned that our haunts are often among the wildest and most romantic scenes. Observe, for instance, the rich woodland scenery that extends in the New Forest, from Burley to Boldre-wood, the seat of Lord Delaware. We grow there in all our pristine beauty; no hatchet is ever lifted on our thick boughs, and beneath our shade innumerable living creatures resort to pasture on our mast.

Gilpin, who delighted in the wildest haunts of the New Forest, tells concerning the hogs, that find a ready banquet wherever our branches spread. He mentions likewise the swineherd, and associates with that ancient

occupation somewhat of poetry and sentiment; instancing, moreover, the obedience to which large herds of usually unmanageable brutes may be reduced, as affording a striking proof of the power that man still possesses over the animal creation.

You may see the swineherd busily employed in seeking out some retired part of the forest, where grows a stately beech, free of underwood, and within reach of a clear stream. This found, he proceeds to wattle around the stem a strong circular fence of the required dimensions, and, after covering the roof with boughs and sods, he fills it with abundance of fern and straw. A shelter being thus prepared, he next proceeds to collect a grunting colony among the neighbouring farmers, with whom he agrees for a shilling a head, and generally succeeds in obtaining at least five or six hundred hogs. Behold him, then, driving his ungainly flock to their destined habitation, where he has prepared a plentiful supply of acorns, or rather beech-mast, agreeing in this respect with Pliny,

who gave them a decided preference. And hark to the cheerful notes of the swineherd's horn, with which he enlivens their repast ; and when their little twinkling eyes begin to close, he conducts them to their shelter for the night. Scarcely, however, has the sun arisen, and begun to gild our topmost boughs, than the swineherd summons his grunting charge. He shows them the pool or clear stream at which they can either bathe or quench their thirst, and encourages them to pick up the remnant of their last evening's repast ; and when our giant trees fling their long shadows on the grass, he gives them another plentiful repast beneath our branches, or beneath those of contiguous oaks, which oftentimes rain acorns upon them for an hour together at the sound of his horn ; after which he reconducts them to their hovel for the night.

The next day he generally procures them another meal, with music playing as before. He then gradually withdraws, keeping, however, a watchful eye on their evening hours. But when their appetites are satisfied they rarely

wander far from their temporary home, and return early and in good order to their bed.

After this, the sty is left open both day and night, and the occupants are left to their own resources. The swineherd henceforth has little more trouble with them during the time of their sojourning in the forest. He might study Virgil if it so pleased him, or fancy himself the faithful swineherd who pastured his grunting charge beneath the oaks of Ithica, when,

“Mid cavern’d ways, the shaggy coast along,
With cliffs and nodding forests overhung,
Forth hasted he to tend his bristly care,
Well arm’d and fenced against nocturnal air ;
His weighty falchion o’er his shoulders tied,
His shaggy coat a mountain goat supplied ;
With his broad spear, the dread of dogs and men,
To seek his lodging in the rocky den ;
There to the tusky herd he bends his way,
Where, screen’d from Boreas, high o’erarch’d they lay.”

Odyssey.

In calm weather, when scarcely a breeze is stirring, and

mast falls sparingly, the swineherd now and then invites them, with the music of his horn, to a gratuitous meal, but in general this is unnecessary ; they speedily seek out the best laden trees, and such as yield the finest mast or acorns, and range occasionally to the distance of three or four miles. Swineherds report, that every herd is conducted by an experienced leader, who, having led a forest life for perhaps several seasons, instructs his younger bretheren, and conducts them to his favourite haunts among the woods.

Our grunting dependants have generally been regarded as obstinate, headstrong, and unmanageable. True it is, that they have somewhat of self-will, which inclines them to a degree of positiveness, as regards the will of others ; but when judiciously instructed,—and for this we have the authority of Gilpin,—they become both orderly and docile. Some difficulty at first doubtless consists in enabling them to comprehend that your intentions are friendly, because hard usage uniformly excites mistrust ; but when this is effected, you may lead them with a straw.

Nor is the calumniated quadruped without social feelings. He chooses his associates from among the herd ; and when ranging through the woods in his forest migration, it is uniformly observed that he forms, with his companions, little communities, which keep together, and pasture under the same tree : nay more, should it happen that they are again sent forth to lead a wandering life in quest of mast and acorns, the young pigs of one year, having attained full age the next, remember their early associates, and range together as heretofore ; and as they go forth at early dawn, so they return at night with complacent gruntings, as if discussing the adventures of the day.

Some of our venerable brethren, observant trees, who have looked for ages on the actings of men and animals, incline to the opinion that swine anticipate with pleasure the period of wood-ranging. Certain it is, that they greatly enjoy that pleasant mode of life, wandering about at ease, basking in the sunbeams, or bathing in clear streams, such as a naiad might affect, and conversing “with one another

in short, pithy, interrupted sentences, which are no doubt expressive of their enjoyments and friendly feelings.”

Other races subsist upon our mast. These are indigenous forest hogs, the property of forest-keepers, and which chiefly depend for their livelihood, during winter, on the roots of fern. You may see hundreds of these creatures, labouring with all their might to obtain a scanty subsistence by turning up the ground, when our noble branches wave against a wintry sky: and thus the winter passes, till our boughs are again loaded with plenty, when their sonorous grunts are heard from amid the forest depths; and freely do they help themselves, although no stirring sounds of forest melody cheer them at their daily meals. Some, also, of the grunting tribe wander at will, without any settled habitation. They affect the most lonely and thickly wooded parts, where many a friendly tree affords them both food and shelter. No care is extended towards them, if their delving snouts are unable to penetrate the ground by reason of hard frost; no kind hand ministers to their

wants; no forest-keeper goes forth in quest of them, with hay or turnips: they must forget the cravings of hunger, and bury themselves among withered leaves, till better days, or till they discover some less frozen part covered with withered ferns.

Listen to the following animated description. It will bring before your mental view a scene of no ordinary interest, associated with our New Forest brethren, and their grunting dependants.

“We well remember,” said the narrator,* “when in one of our rambles we had thrown ourselves down at the root of a great beech-tree, whence we looked abroad from underneath its wide canopy of foliage on a small streak of sunshine, which, penetrating an opening in the wood, and falling athwart the ground beyond, gave a broader and deeper effect to the surrounding shadows. Not a breath of air shook the stationary foliage, not a sound was heard, and we lay in all that listlessness of dreamy musing which

* Sir Thomas Dick Lauder.

to the idle mind might seem as idleness, but which the philosopher and moralist well know how to appreciate. Suddenly, a sound resembling that of warlike music, mellowed somewhat by distance, came upon the ear. We started from our recumbent posture, so far as to lean upon one arm, and strained to listen, with some degree of awe. Tales of childhood were remembered at the moment, and we almost expected to see some fairy pageant advancing through the glades; forgetful that such pageants belong to the witching hour of deep midnight. The sound meanwhile increased, and grew louder as it advanced; and as it drew yet nearer and nearer, the tramp of what might have passed for fairy cavalry mingled with that strange, unearthly sound. Even then we were totally ignorant of what spectacle awaited us, until the leading boar of a large herd of forest swine, whose ancestors were brought by Charles I. from the forest of Germany, came grunting forward in the sunshine, followed by the musical members of his harmonious detachment. Perchance, the cheering

and cherishing effects of the sunbeams, or some savory herbage on the spot, attracted the troop; for the grunting swelled into a louder chorus, snouts were quickly set to work, ears and tails were kept in joyous and continued motion, and small eyes seemed to flash back the sunny rays with unusual eagerness of expression. True it was, that the company of joyous and excited creatures were homeless forest swine. Yet still the sight was beautiful and interesting; the creatures were in fine condition, their bristles shone like silver, their bodies were clean as if they had been duly washed and combed like a lady's lap-dog, and they seemed so free and happy, that our mind was filled with the romance of forest recollections. We sprang up, in order to observe and admire them more closely; but the noise alarmed the joyous brotherhood, and off they galloped in a terrible fright, helter-skelter, with a speed that none of the porcine races, excepting such as are free forest-rangers, could possibly exhibit. And long after the whisk of the last tail was seen disappearing among the

shades, into which they penetrated, their retreating tramp was heard gradually dying away."

My stately brother, the strong oak, has spoken concerning the abundance of his acorns, and that from year to year he has scattered millions upon the earth. Methinks my liberality is equally manifested, and my fruit deserving of brief notice. Observe the ovate form of the enclosing calyx, its silkiness, and pliant prickles, and how beautifully the brown and glossy mast fits within that elegant receptacle. A botanist will tell you, that the beech-mast exhibits in its growth a familiar illustration of vegetable economy. First uprise from out the earth cotyledons, or seed-lobes, which, like careful nurses, cherish and look well to the young plant when it begins to expand, and from which the first leaves are derived; secondly, the corculum, or heart, placed between the cotyledons, and which exhibits in its emerging a plumule, or feather-like appearance, which gradually changes into a tuft of young leaves; thirdly, an internal scar, called the eye, or hilum; and lastly, the

arillus, or seed-coat, which falls off spontaneously. All this the botanist narrates, and a poet thus carries on the subject:—

Yes, the small beech-mast,

Instinct with life, doth rise from out the ground,
Nursed by soft dews, and sunbeams, and mild winds ;
And those two watchful guardians, whose true office
Doth cease not, till the scion stands alone,
A mimic tree, yet such as dibbling foot
Of fawn might crush, but destined soon to rise
With might of boughs, beneath whose ample shade
Flocks may lie down at noon.

My boughs, though comparatively unpeopled during the summer months, are resorted to in autumn by vast numbers of rooks and squirrels. You may see the sable brotherhood, flying in clouds from yonder row of elms, and then, alighting with grave and measured steps, they proceed to gather in their harvest of beech-mast, which they secrete in the ploughed fields, or among ferns or moss, and thus form convenient granaries for winter. The nimble and light-hearted squirrel is here also, with his numerous rela-

tives, for they, in like manner, warily lay by a store for winter consumption. My bark, when rough, affords a kind of ladder, whereby the active creatures may readily gain the highest branches; and up and down they go, swiftly and safely, with their brushy tails spread out like fans, and their quick eyes glancing in all directions. Many a noble tree owes its birth to beech-mast, which rooks and squirrels have dropped in their haste, or perchance forgotten, when carefully laid by.

CHAPTER VI.

ASH-TREE.

Fraxinus excelsior.

“The ash far stretching his umbrageous arm.”

Cowper.

THE ASH, pre-eminent in sylvan elegance, may surely challenge competition with her brothers of the forest, said a murmuring voice from among the branches of a graceful ash. Look upon my smooth grey bark, and the curving upwards of my lower branches, of which the light and airy foliage emulates that of the acacia, the tree beloved of nightingales.

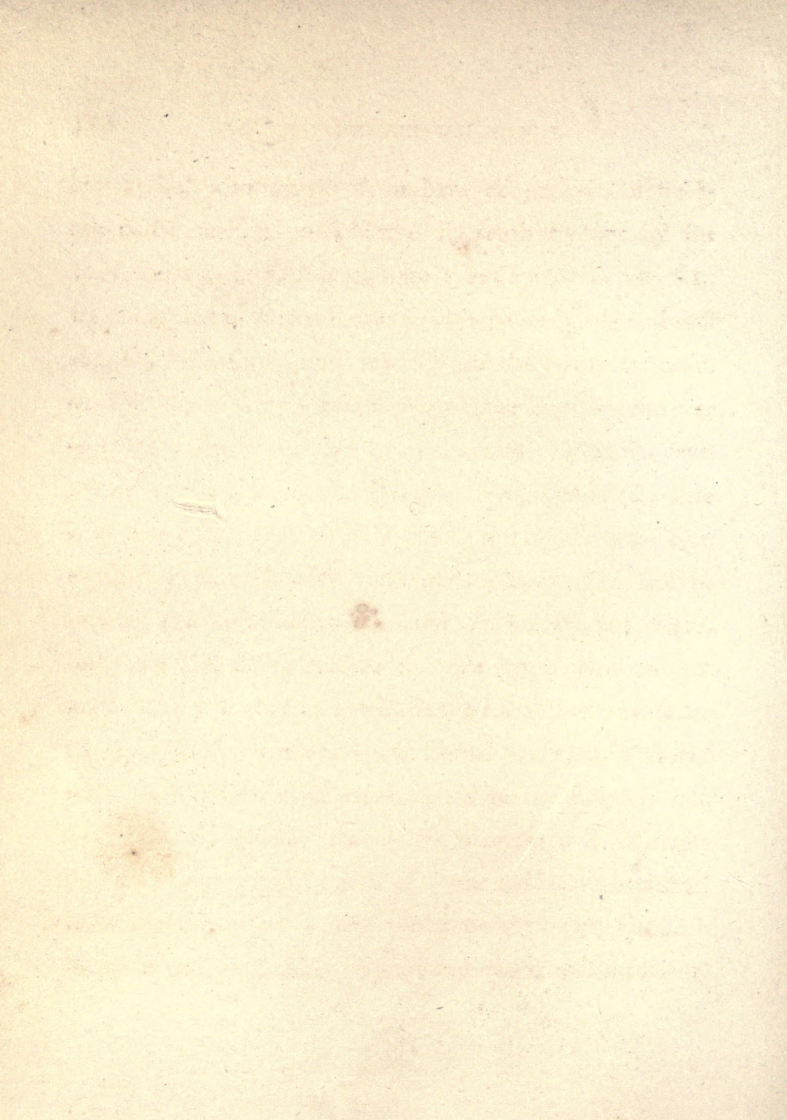
The coming forth of my leaves in spring, informs the



W.F. del et lith.

A S H.

R. B. & R. imp



gardener that he may venture his green-house plants into the open air; in autumn, their sudden fall, when breathed upon by the slightest frost, warns him to shelter them. Much, too, of advantage to the farmer is derived from my roots, as under drains, on the side of ditches or boggy meadows, by means of which the ground is rendered both firm and hard. Men owe to me the best handles for their tools employed in husbandry, for carts also, and wains, and work pertaining to the wheelwright; and my bark is available for tanning calf-skin. The chemist, by using a slight infusion of it, produces a beautiful and curious transition from one colour to another. The infusion, when viewed between the eye and light, appears of a pale yellow colour; but when looked down upon, or placed between the eye and an opake substance, it becomes blue. This blueness is destroyed by the addition of an acid, and alkalies recover it again.

Poets sing concerning the light and airy elegance of my quivering branches, my smooth rind, and bright green

leaves; but who among them have chronicled the noble ash of Cranock, planted in the sixteenth century by Sir T. Nicholson, Lord Advocate in the time of James VI., when bearded men stood round with peaked hats and stiff starched ruffs, thinking, it might be, of the Spanish armada, or their young king's marriage with the Danish princess;—a tree which now aspires to the height of ninety feet, and twenty-one in girth at nine feet from the ground? Neither have they sung concerning the goodly ash in Woburn Park, containing eight hundred and seventy-two cubic feet of timber; nor of the hollow ash-trunk at Donirey, near Clare, forty-two feet in circumference. And yet what subject more worthy of poetic inspiration, than that same hollow trunk?—a living cavern, but, in lieu of stones, a rough and serried bark; instead of ferns rooted in the interstices, a few green leaves, showing that life remains; and within its ample precincts a little school of peasant children, gathered from the contiguous cottages, and taught by one of noble birth, to read in that holy book from which words of love,

and peace, and gentle admonition were bodied forth. Trees cluster round, and from amidst their branches birds sing merrily, while beside the greensward murmurs a clear stream, with rushes and wild flowers, which the children gather on a summer holiday.

“The pastoral cowslips are their little pets,
And daisy stars, whose firmament is green ;
Pansies, and those veiled nuns, meek violets,
Sighing to that warm world from which they screen ;
And golden daffodils plucked for May’s queen,
And lonely harebells quaking on the heath ;
And hyacinth, long since a fair youth seen.”

Hood.

And often, in the stillness of that lone place, when nought is heard but the rippling of a clear stream in unison with birds and winds, sound the voices of young children from the hollow tree, singing the evening hymn, that sweetest of all sounds, when as yet the heart is full of love, and rejoices in the gladness of its being.

Strange fantasies were associated with my leaves and

twigs in different parts of Britain, and a few still linger in the principality of Wales. In Wiltshire, also, and in Devonshire, and all such places, where extensive commons abound, or rocks and waterfalls, it was once the practice to pluck an ash-leaf in every case where the leaflets were of equal number, and to say,

“Even ash, I do thee pluck,
Hoping thus to meet good luck;
If no luck I get from thee,
Better far be on the tree.”

Traditionary reverence is also attached to me, even more than to any other forest tree; and in this you may recognize evident traces of that mythological system, in which the ash, Yggdrassil, or the world's tree—the greatest and holiest of all trees, which embraces the universe, and from whose boughs descend the bee-feeding dew, figured so prominently. Hence, without doubt, originated the strange custom of passing children through a cleft ash-tree, which also prevails in India with regard to other trees, when

the father presents the child, and the mother receives it; —an old custom, more honoured in the breach than in the observance, and which is spoken of with just reprehension in one of the Homilies of the Anglo-Saxon Church, edited by Mr. Thorpe for the Ælfric Society :—"It is not allowed to any Christian man to fetch his health from any stone, nor from any tree; unless it be the holy sign of the Rood, nor from any place, unless it be the holy house, wherein the Most High is worshipped." And again, in the ancient laws and institutes of Britain, tree-worshippings and stone-worshippings are denounced as "the craft of the Wicked One, whereby children are drawn through the earth."

Aged trees have told concerning the grey lichens which cluster on their stems and branches. Some speak proudly of "evanescent nations" which resort to them; others, of birds and animals that find a storehouse and a home beneath their shelter; but I shall speak of a small parasitic fungus that pertains to me exclusively, the *Sphæria fraxinea*, or ash sphæria, one of the most curious among its brethren,

—a minute, black, roundish, convex, and dotted fungus, growing in masses, and first discovered on an old ash-tree by the footway between Thornbury and Alveston, and on one overhanging the road leading up the first hill between Queen's-ferry and Edinburgh.

This small and homely fungus is wondrously constructed, and presents in its interior a number of concentric layers, composed of minute tubes or threads pointing from the centre; the seed-vessels are scarcely visible, but when ripe they emit a large quantity of black powder. Yet, however unsightly, it forms the garner of an apparently weak creature, which is nevertheless endowed with sufficient strength to make its way through a deal board; and that, not by softening the hard substance, but by the aid of its strong teeth: a degree of strength which, if possessed by the horse or elephant, in accordance with their proportions, would enable them to uproot the strongest and stateliest oak that ever breasted the storms of winter.

CHAPTER VII.

WILD PEAR-TREE. IRON-PEAR.

Pyrus communis.

“Ten ruddy wildings in the wood I found,
And stood on tiptoes, reaching from the ground.”

Virgil.

A PHILOSOPHER came one day and sat beneath my branches, and with him (said a wild pear-tree) was a youth, to whom he spoke concerning the various uses of such trees as grew around.

It seems, he said, as if the merciful Creator of the Universe had given divers textures to different kinds of wood, that in the passing on of ages, and the developing

of such arts as pertain to different conditions of society, men might find materials to their hands. Why, else, does beech-wood differ from that of ash? Why to the one is imparted such firmness of texture that it may be wrought like a block of stone, were it not required for mill-work or wheels; while on the other is bestowed a flexibility and elasticity like that of steel?—that further, according to Linnæus, the wood of the singular and elegant spindle-tree, if cut when the plant is blossoming, is so tough and difficult to break that watchmakers use it for cleaning watches, and musical instrument makers as keys for organs; and that the limner prepares from it the best charcoal for designs? Lastly, without the box and pear-tree, blocks of sufficient hardness could hardly be obtained for purposes of wood-engraving.

Men have found materials to their hands in trees of which the uses long remained undefined. Dwellers in the north made their canoes with the bark of giant birch-trees, but they knew nought concerning the imperishable nature

of its wood, nor the purposes to which its silvery underbark could be applied. British and Saxon children gathered fruit from the wild pear-tree, but their parents had never heard concerning that dormant art with which the artist, when aided by its charred wood, conveys to a broad surface embodyings of his inventive genius, or delineations of what has been.

The ravine is narrow; and yet trees of all foliage group on either side, each with its distinctive character and prescribed use. How beautiful the blossoms of this pear-tree! white as snow-flakes, reflecting the light of heaven from innumerable little mirrors on the embryo fruit, and yielding an exquisite variety of lights and shades as the sunbeams come and go. And yet this tree, with its budding foliage and beauteous blossoms, the haunt of innumerable bees, was once enclosed in a kernel.

Let us consider, for a moment, the twofold uses of the fruit, or rather of the pulp in which the kernel is enclosed. When attained to full growth, it subserves the purpose of

perfecting the seed or kernel by means of vessels passing through the stone; but when the kernel is fully grown, and the shelly substance becomes hard, the vessels cease their functions. But the enclosing pulp has still another purpose to fulfil;—it was previously designed merely to perfect the kernel; when that purpose is effected, the pulp receives and retains the whole of the sun's influence, and becomes a grateful food to man. The stone, either planted by his hand, or falling ungathered from the tree, sinks into the earth beneath, where it will remain until an appointed season; and then, emerging from the earth, complete in all its parts, it gradually becomes a tree.

All this is familiar to the mind. It is a fact that meets us at every turn, whether among shrubs or forest trees, or such as yield fruit or flowers. It is connected with researches which science has gradually led onward to their full development; and hence, the emerging of a plant from out the ground, the circulation of the sap, and the produc-

tion of leaves and fruit, are no longer subjects of unsatisfactory inquiry.

Life is developed throughout the vegetable world; but inert matter has no self-producing quality—no power of enlargement. That which happens continually in trees, would in an unhewn stone become a miracle. A magnificent oak, with its spreading branches, rises from an acorn; but a cathedral owes its existence to the hands of man. Neither columns, porticoes, fretted windows, nor sculptured doors can unfold from out the rock; but a vast vegetable column silently, imperceptibly, goes on from year to year, till its magnificent proportions become fully manifested. The same Creative Power which gives life to the acorn, might have similarly endowed a block of stone, and, had he thus willed, it would have been nothing to wonder at. Yet the emerging of an oak from its acorn cradle, if such a phenomenon had never before occurred, would excite equal astonishment in the minds of men as if it had pleased Omnipotence that a cathedral should gradually

develope in its fair proportions from a block of granite. "To say that the one has life, the other not, is an answer that solves nothing—it consists of empty words."

According to De Theis, the generic name of the wild pear is derived from the Celtic word *perin*, whence the Anglo-Saxon *pere*, the English *pear*, and the French *poire*. This tall tree, of which the main branches are upright, and the smaller ones curve downward, grows best in a fertile soil, and on sloping ground; but will not thrive in moist valleys, where the hawthorn loves to nestle. It braves the severest winters, and does not injure the herbage that grows beneath its shade. The wood, when cut, and ready for the carpenter, is light, compact, and smooth; it is consequently in much request with turners, and is used for joiners' tools, and picture-frames to be stained black. The fruit of the wild tree is harsh, and is relished only by swine or hedgehogs; but, when cultivated, is extremely grateful to the taste, and at least one hundred varieties have originated from the native species.

Pear orchards are common in Worcestershire and Herefordshire, and their effect in spring is beautiful. In autumn, too, their ripe fruit looks well, and the branches of many a widely-spreading tree are upheld by strong supporters, when ready to break down with the abundance of that joyous season. The making of perry succeeds to the gathering of ripe pears, and, among numerous varieties of perry, the Squash, the Oldfield, and the Barley, are reputed the best, and are little inferior to wine. British pomonists would do well to adopt a practice common in France, and which greatly improves the flavour and growth of pears, and this is, grafting them on a quince stock, which tends to stunt their growth, and to produce fruit-bearing branches.

Sugar may be obtained both from pears and apples, which yield about one ounce of sugar from each pound weight of fruit.

Pear-trees occasionally attain to a great size. A noble specimen may be seen near the parsonage-house at Horn

Lacy, a seat of the Duke of Norfolk, in Herefordshire, which covers nearly a quarter of an acre, and forms an orchard of itself, having yielded, for many years, from twelve to sixteen hogsheads of perry. This patriarchal tree has attained its present size from a succession of layers that have rooted, and bear fruit.

If the botanist delights in noticing the beautiful formation of its blossom, not less interesting is the pear-tree to entomologists. Wingless insects of various kinds, with butterflies and moths, take shelter among the leaves or bark. A species of *Tinea* especially fixes her tent-like dwelling on the ample surface of its broad leaves; and thus pleasingly have Kirby and Spence described the method by which this is effected.—

Examine, say they, the leaves of your pear-trees in the spring, and you will observe several perpendicular, downy, russet-coloured projections, about a quarter of an inch high. Beneath them are excavations, formed by a small caterpillar, which obtains its food by moving its little tent from one

part of the leaf to another, and eating away the spaces immediately beneath. The case in which the caterpillar resides, and which is essential to its existence, is composed of the finest silk; and as the creature increases in size, it enlarges its mimic tent by slitting it in two, and introducing a slip of new material. In order to retain the tent in a perpendicular posture, the little Arab attaches silken threads from the base to the surrounding surface of the leaf, and, lest any violence should overturn its slender dwelling, the creature forms a vacuum in the protuberance at the base, and thus as effectually fastens it to the leaf, as if an air-pump had been employed. This vacuum is produced by the rapid retreating of the insect, on the least alarm, up its narrow case, which it completely fills up, and thus leaves the space below free; and, as if aware that should the air get admission from below, a vacuum would be impracticable, and the strongest bulwark of its fortress be destroyed, the little philosopher carefully avoids gnawing a hole in the leaf, contenting itself with the pasturage afforded by the paren-

chyma above the lower epidermis ; and when the produce of this area is consumed, it gnaws asunder the cords of its tent, and pitches it again at a short distance. When the creature attains its full growth, it assumes the pupa state, and after a while issues out of its confinement, a small brown moth, with long hind legs, the *Phalæna Tinea ser-ratella* of Linnæus.

CRAB-TREE.

Crab-trees flourish better on declivities, and in shady places, than in open pastures. Their delicately blended pink and white blossoms render them more exquisitely beautiful, either collectively or individually, than the common apple. And yet the orchards of this country present a combination of fragrance and of beauty, in the month of May, that is unrivalled throughout the vegetable world.

Ascend to the summit of Malvern hill, or some bold



W.F. del et lith.

C R A B.

R.B. & R. imp.

eminence in Herefordshire or Devonshire, and look, from either the one or the other, over the apple orchards of both counties. From Malvern, especially, which rises to an elevation of one thousand feet above the vale country, the boundless and richly diversified prospect comprises, in its nearer landscape, on one side, the pear-trees of Worcester-shire; on the other, the apple-trees of Herefordshire.—

“One boundless blush, one wide empurpled shower,
Of mingled blossoms.”

This beauteous show is succeeded, from the end of July till October, by the gradual ripening of different kinds of apples, for the dessert, or kitchen use, or cider-making, most of which improve after being gathered, and some will even keep good till the next apple-harvest.

Poets have described the joyous season of haymaking, and the reaper's pleasant toil, when he cuts down the ripe brown ears, and his wife and children bind the sheaths together; but what more suggestive of poetic inspiration than the gathering of apples in autumn, when delicious

fruits replace the flowers of summer, and the mellow apples, whose golden hue is often heightened by rich streaks of carmine, weigh down the branch that bears them?

Such an orchard stood contiguous to the "old house at home" where my young days passed. It might be seen at a considerable distance, for the orchard was extensive, and lay on the slope of a considerable hill. Pleasant sounds were there: bees came from far, to gather honey from the blossoms, and singing birds built their nests among the branches; the murmur of rushing waters also came remotely on the ear, with the cheerful songs of labourers in the mowing season. That orchard, with its blended white and pink blossoms, could never be sufficiently admired; thoughts of quietness, and beauty, and perfection were awakened in the minds of many as they passed.

In autumn the scene was animating. Ladders were put against the trees, and the choicest apples were carefully gathered, while such as were designed for making cider were shaken to the ground. Meanwhile, women and

children, with baskets and spread aprons, ran blithely to pick up such as fell, laughing ever and anon, when a shower of apples was shaken with merry intent upon them, by some urchin who concealed himself among the branches. To this succeeded the carrying of large baskets, filled with apples, to the mill, where, after being laid awhile in heaps to mellow, they were crushed and pressed till all their juice was extracted, which, being fermented, became cider.

Britain was early celebrated for her orchards, and mention is made of apples in the ancient Saxon rite of coronation, as recorded in the time of Edgar.

“May the Almighty Lord give thee, O king, from the dew of heaven, and the fatness of the earth, abundance of corn, and wine, and oil. Be thou the lord of thy brothers, and let the sons of thy mother bow down before thee. Let the people serve thee and the tribes adore thee. May the Almighty bless thee with the blessings of heaven above, and the mountains and the valleys, with the blessings of the deep below, with the blessings of grapes and apples.

“Bless, O Lord, the courage of this prince, and prosper the work of his hands; and, by thy blessing, may his land be filled with apples, with the fruit and dew of heaven, from the top of the ancient mountains, from the apples of the eternal hills, from the fruits of the earth, and its fulness.”

Superstitions linger around most trees: the apple-tree especially is honoured with rustic observances, derived without doubt from the dark ages of Pagan superstition, when every tree was supposed to be indwelt by some presiding genius.

Yet not in the time of blossoms, when the beauty of each tree gives an earnest of abundance, nor yet when ripe fruit is seen upon the branches, is this ancient ceremony performed. Scarcely have the merry bells ushered in the morning of Christmas, than a troop of people may be seen entering the apple-orchard, often when the trees are powdered with hoar-frost, and snow lies deep upon the ground. One of the company carries a large flask filled

with cider, and tastefully decorated with holly branches ; and when every one has advanced about ten paces from the trunk of the choicest tree, rustic pipes, made from the hollow boughs of elder, are played upon by young men, while echo repeats the strain, and it seems as if fairy musicians responded in low sweet tones from some neighbouring wood or hill,—for this custom is almost peculiar to the secluded parts of Devonshire and Herefordshire.

Then bursts forth a chorus of loud and sonorous voices, while the cider-flask is being emptied of its contents around the tree ; and such are the strains they sing :—

“ Here’s to thee, old apple-tree,
Long mayest thou grow,
And long mayest thou blow,
And ripen the apples that hang on thy bough.

“ This full can of apple wine,
Old tree, be thine:
It will cheer thee and warm thee amid the deep snow,
Till the goldfinch, fond bird,
In the orchard is heard,
Singing blithe ’mid the blossoms that whiten thy bough.”

Mention is also made of apples in a very old ballad, called the "Jew's Daughter;" and the traveller who journeys through the northern counties may hear, perchance, a few verses floating through the open lattice of some wayside cottage.

The writer of an article entitled "Old English Ballads," in the 'Athenæum' for 1839, mentions having heard the following lines from an Englishwoman, who learned them from her playmates, and remembered the same wild ditty to have been sung by her grandmother over her spinning-wheel.

"It rained, it rained in merry Scotland,
It rained on great and small,
When many a lad, in merry Scotland,
Came out to play at ball.

"Then out there came the Jew's daughter,
And said to one, 'Come in and dine.'
'I will not come in, I cannot come in,
Without my playmates nine.'

"She showed him an apple as green as grass,
She showed him a gay gold ring ;

She showed him a cherry as red as blood,
And with that she 'ticed him in!"

Or, as Percy has given the third stanza, in his 'Reliques,'—

"Sche powd an apple reid and white,
To intice the yong thing in;
Sche powd an apple white and reid,
And that the sweit bairne did win."

BLACKTHORN.

The blackthorn, or sloe, is inseparably associated with the poet Bloomfield. His touching description of the "poor bird-boy, and his roasted sloes," will ever be remembered by the lovers of poetry and nature, when looking upon this bushy, rigid, and thorny tree, with its dark-coloured bark and white flowers, blossoming not unfrequently in frosty March.

Thus sang the author of the 'Farmer's Boy':—

"From hungry woodland foes, go, Giles, and guard
The rising wheat: ensure its great reward;

A future sustenance, a summer's pride,
Demand thy vigilance : then be it tried ;
Exert thy voice, and wield thy shotless gun :
Go tarry there from morn till setting sun.

“ Keen blows the blast, or ceaseless rains descend,
The half-stript hedge a sorry shelter lends.
Oh, for a hovel, e'er so small or low,
Whose roof, repelling winds and early snow,
Might bring home comforts fresh before his eyes !
No sooner thought, than see the structure rise,
In some sequestered nook embanked around,
Sod for its walls, and straw in bundles bound ;
Dried fuel hoarded is his richest store,
And circling smoke obscures his little door :
Whence creeping forth, to duty's call he yields,
And strolls the Crusoe of the lonely fields.
On whitethorns towering, and the leafless rose,
A frost-nipt feast in bright vermilion glows :
Where clustering sloes in glossy order rise,
He crops the loaded branch : a cumbrous prize ;
And o'er the flame the sputtering fruit he rests,
Placing green sods to seat his coming guests :
His guests by promise ; playmates young and gay ;
But ah ! fresh pastimes lure their steps away.
He sweeps his hearth, and homeward looks in vain,
Till, feeling disappointment's cruel pain,

His fairy revels are exchanged for rage ;
His banquet marred, grown dull his hermitage.
The fields become his prison, till on high,
Benighted birds to shades and coverts fly.

“Look, then, from trivial up to greater woes ;
From the poor bird-boy with his roasted sloes,
To where the dungeoned mourner heaves the sigh ;
Where not one cheering sunbeam meets his eye.
Though ineffectual pity thine may be,
No wealth, no power to set the captive free ;
Thy slights can make the wretched more forlorn,
And deeper drive affliction’s barbed thorn.
Say not, ‘ I’ll come and cheer thy gloomy cell
With news of dearest friends ; how good, how well :
I’ll be a joyful herald to thine heart ; ’
Then fail, and play the worthless trifler’s part.”

Think of these lines in connection with the blackthorn, and the “poor bird-boy and his roasted sloes,” whenever you are inclined to neglect some one, whom sickness makes a prisoner, or whose dull hours, confined, perchance, to a monotonous occupation, are rarely cheered by a friendly voice or smile.

The ordinary and neglected little tree which inspired the muse of Bloomfield, often presents a cheerful appearance when covered with white flowers, amid leafless and dark associates. Yet those blossoms fall in showers with the slightest breeze, a peculiarity thus noticed by the poet Cunningham, as offering a fit emblem of that insidious complaint, too often observable in

“ Youth—the vision of a morn,
That flees the coming day :
It is the blossom of a thorn,
Which rude winds sweep away.”

When mellowed by early frost, the fruit of the black-thorn is so tempered by a blended sweetness and roughness as not to be unpleasant ; and when bruised and put into wine, it imparts a beautiful red colour and agreeable sub-acid roughness, hence it is much in request for making British port-wine. The juice forms an indelible ink for marking linen ; and the tender leaves are the best substitute for tea.



W. F. del et lith.

R. B. & R. imp.

HAWTHORN.

HAWTHORN.

The mention of a hawthorn among trees, continued the philosopher, may perhaps seem strange, and yet this graceful species not unfrequently attains to a considerable height. A fine specimen stands near the rustic bridge on the Belan grounds at Wynnslay, North Wales, which measures six feet in girth, and five in height; and in the garden court of an old house, once inhabited by the Regent Murray, stands the tree that was planted by ill-fated Mary Stuart, while a prisoner.

Philips, who looked upon all trees with a poet's eye, delighted to eulogize the hawthorn; the garland of Flora does not possess, he said, a more charming blossom than is afforded by its peerless pink or white, nor does the richest perfume of Araby yield sweeter fragrance.

Associated, likewise, with festive or mournful rites, the Troglodytes, according to the testimony of Diodorus, adorned the funereal obsequies of their parents with

branches of hawthorn, emblematic of their hope, that death had been to them a gate of life. They were appropriated, also, to the nuptial chaplet of Athenian maidens, and composed the festive garlands that were borne in procession among the Romans; nor were our ancestors unmindful of their beauty, when they went forth to gather branches on May-day.

But whether permitted to live its century in wild luxuriance, attaining to the height of twenty to thirty feet, or whether growing low, in hedgerows, or drooping over old park palings, the hawthorn equally attracts attention. The standard tree, both as respects its fragrant blossoms in the spring, and its rich scarlet berries in autumn, is one of the most attractive objects that can be introduced into a park or lawn.

Who does not remember with delight the hawthorns of his native village, clustering, it may be, on the village common, or making white the hedges, or displayed in the glades and glens of extensive woodlands, or blended with

park scenery, shedding their rich fragrance in the morning or at even-tide, when dews began to fall, and all song birds were hushed ?

Few plants deviate less from their stated time of blossoming than the hawthorn ; they are neither allured by mild weather in April, nor materially retarded by storms in May. Their blossoming is one of nature's indications, that the swifts and temple-haunting martlets are arrived on the shores of Britain, and that the primrose and the violet, the cowslip, harebell, and blue speedwell, herald their approach.

Yet not alone, in its own perfect beauty, is the common hawthorn. Botanists speak of three varieties : the great scarlet hawthorn, with oblong, smooth, and large bright scarlet berries ; the yellow hawthorn, of which the buds, when first unfolding in the spring, are of the finest yellow, and the fruit gold-coloured ; and the maple-leaved hawthorn, with large leaves, succeeded by bunches of beautiful shining red berries. The double-blossomed varieties are especially

designed for pleasure-gardens; they blossom freely either as trees or dwarf shrubs, and nothing can be more attractive than the roseate hue of the pink kind. And if the admirer of forest trees lingers with delight while passing a fragrant hawthorn bush in spring, how much more the botanist, when observing the construction of each blossom! Not looking, as the author of '*Sylva Florifera*' has well observed, merely to notice the stigma, or to count the stamens; but to observe the shape of the five petals, whose concave forms protect the pollen, and mature it by acting as reflectors.

Strange it seems that Gilpin, who loved trees of every shape and hue, should have cared little for the hawthorn; but an historian of woodland scenery, who often sought out his favourite haunts, has thus ably spoken in its praise:—

“You may see that picturesque tree,” he said, “or shrub, according to its locality, hanging over rocks, with deep shadows under its foliage, or else clinging with

tenacious grasp to their sides in most fantastic forms, as if to gaze on its image in some deep pool below. We have seen it," he thus writes, "contrasting its tender green, and its delicate leaves, with the bright and deeper masses of the holly and the alder ; we have seen it growing under the shelter, though not the shade, of some stately oak, embodying the idea of beauty protected by strength. Our eyes have often caught the motion of the busy mill-wheel, over which its blossoms were clustering ; and we have seen it growing grandly on the village common, the object of general attraction to young urchins who play about its roots, perhaps the only thing remaining to be recognized when the school-boy returns as the man. We have seen its aged boughs overshadowing some peaceful cottage, its foliage half-concealing the window, whence sounds of cheerfulness came forth."

And thus has the natural historian of whom we speak associated a succession of rural images with the fragrant hawthorn, — the village hawthorn, the hawthorn that

flowers beside the cottage door, when the dame brings forth her spinning-wheel, and the blackbird sings from his wicker cage: a tree which Chaucer well described, and connected with the strongholds of Druidism, in Anglesey, the ancient Mona, as also with an "extensive plaine, whereon stoode erect huge stones, which men call Stonehenge."

"There fruytless heathes and meadows cladde in greie,
Save where derne hawthornes reare theyr humble heade.
The hungrie traveller upon his waie
Sees a huge desarte all arounde hym spredde.
A wondrous pyle of rugged mountaynes standes
Placed on eche other in a dreare arraie :
It ne could be the worke of human handes,
It ne was reared up hie by men of clai.
There did the Britons adoration paye
To the false God, whom they did Tauran name,
Dightynge his altarre with greete fyres in Maie,
Burninge their vycetims round aboute the flame."

Pilgrimages are often made, by those who love the hawthorn, to such as grow in Richmond and Bushy Parks. Among these are many in their loveliness and youth, and

some aged, and time-worn, and fantastically twisted, yet still throwing out in spring an abundance of white or pink blossoms. Others of great beauty or antiquity grow wild in different parts of England ; but the most venerable and continually resorted to, is an old hawthorn near the village of Duddingstone, near Edinburgh. At three feet above the root, this old trunk is nine feet in girth, and a little higher up twelve feet more.

The hawthorn will root from a truncheon like the poplar or willow tribes. A large tree now growing at Fountain Hall, in Haddingtonshire, is stated, on the authority of the forester, a man of undoubted veracity, to have arisen from a stake which he had driven into the ground with his own hand, in making a dead hedge. Great was his astonishment when the next year that same stake put forth branches, and became a thriving tree. Thus, also,

“ Old stakes of olive-trees in plants revive ;
By the same method Paphian myrtles live.”

Beautiful is the hawthorn in its youth, and equally fantastic in old age, when covered with moss and long pendent lichens. Such was the old tree, in which, according to the poet, dwelt a small wood-sprite, whose brief history is embodied in language equally musical and refined, and which, while introducing to the young imagination "some of the natural poetry by which the world is haunted, appeals to its human affections."

"Once on a time, on a summer day,
When mowers were tossing the new-made hay,
A hawthorn-tree that so long had stood,
Its trunk was all gnarled and knotted wood,
And its bark half covered with lichen and moss,
Was cut down to make a new path across
The gentleman's lawn, where it sheltered so long,
The tomtit's nest, and the robin's song :
Woe is me ! Ah, woe is me,
A wood-sprite lived in that hawthorn-tree."

Thus driven from her dwelling-place, the poor little sprite wandered she knew not where, for her heart was full of grief, and she thought by wandering to soothe the

disquietude of her mind. But all would not do ; and when night drew on,

“Back the little wood-sprite came,
Weak, and weary, sick, and lame ;
Back she came in the pale moonlight,
And sat there crying and sobbing all night !
Round and round the stump of the tree,
Where her happy home used to be,
She wandered, sorrowful, faint, and forlorn,
Till the sun rose up for another morn.

“Yet she did pretty well till winter came,
For, humble and lowly, she took with shame
Whatever shelter the trees would give,
To help her without a home to live ;
But one wild night, in a cold November,
Oh ! night, whose grief she must aye remember,
When the whistling wind howled cold and loud,
And the moon was hid in a mass of cloud,
And the sudden gusts of the driving rain
Beat like hail on the window-pane :
In that dread night of darkest horror,
The wood-sprite found, with anxious terror,
Every tree was shut and closed ;
And of all the fairies who there reposed,

Not one could spare her a jot of room ;
They left her, at last, to her dreadful doom !
The strong wind carried her off the ground,
Beat her, and hurled her, and swung her round ;
Lifted her up in the sleety air,
Wafted her here, and drifted her there ;
In vain she struggled, with piercing shriek,
The wind was mighty, and she was weak,
Out of the wood, away it bore her,
Where valley and hill lay stretched before her,
Over the villages, over the towns,
Over the long smooth Devonshire downs,
Many a breathless, terrified mile,
Till past even Weymouth and Portland Isle.
Woe is me ! Ah, woe is me,
The little wood-sprite was blown out to sea."

Friends, however, came to her aid, in the moment of greatest dread ; and the fairy of the hawthorn found a new home in the hospitable hollow of an old oak, sufficiently large to contain fifty wood-sprites.

"And there she lives ; and if you could know,
The moment, exactly, you ought to go,
And could just get leave to be out at night
You might see them dance in the clear moonlight ;





W.F. del et lith.

MOUNTAIN ASH.

R.B. & R. imp.

Where they hop, and leap, and frisk, and spring,
And mark the grass with a fairy-ring.
Now let all gentlemen warning take,
For this poor little wood-sprite's mournful sake,
And when any new paths are marked and planned,
And the woodman comes with his axe in hand,
To cut down some hawthorn that long has stood
And drive its fairy out of the wood,
Let him have strict orders to plant anew,
A young tree near where the old tree grew,
To shelter the sprite from day to day,
That she may not by storms be blown away."

Norton.

MOUNTAIN ASH.

"How clung the rowan to the rock,
And through the foliage showed his head,
With narrow leaves and berries red."

Thus sang the poet when alluding to the rocky habitat of yonder mountain ash, the quicken or roan-tree, *Pyrus aucuparia*; but though affecting boggy and mountainous situations in Wales, Scotland, and the north of

Ireland, with woods and hedges, it grows best on the sides of hills, and in fertile soil.

Druidic observances still linger in various parts of England, and are superstitiously observed by the peasantry, though they know not why. In the highlands of Scotland, where the roan-tree is found more frequently than any other among Druidic circles, small branches are carried by the natives as spells, whereby the wearer may be shielded from witchcraft and enchantment. In Scotland also, especially at Strathspey, sheep and lambs are made to pass, on May-day, through a hoop of roan-wood; and the Scotch dairy-maid will not drive her cattle to the shealings, or summer pastures, with any other rod than that of the roan-tree. In Wales, also, this tree is reputed sacred. And as with us the yew was anciently planted in churchyards, so is the roan, throughout the northern parts of the Principality. Evelyn relates, that in his time, and on a certain memorial day, every Welshman bore a cross made of the wood, and that branches of the same tree, called by some

authors *Fraxinus Cambro-Britannica*, were fixed against houses, or used as walking-staves, because, says old Gerard, "witches and all evil spirits do abhor that same red-berried tree. Hence the name Witchen."

These vestiges of ancient superstitions recall to mind the custom of wearing and suspending amulets around the necks of cattle, which still partially prevails in the south of Europe. And in Scotland a very ancient song, called the Laidley Worm of Spindleston Heughs, refers to the same observance.—

"Their spells were vain: the hags returned
To the queen in sorrowful mood,
Crying, that witches have no power
Where there is roan-tree wood."

The wood, however, has many qualities which are both good and true. It is soft, yet tough and solid, and is excellent for hoops and purposes of archery, and is used in making chairs and tables, shafts, and the spokes of wheels. The roots are formed into handles for knives,

and wooden spoons, and the berries, when dried and reduced to powder, make wholesome bread; ale and beer brewed with them, when ripe, are said by Evelyn to form an incomparable beverage, and if infused in water, an acid liquor, somewhat resembling perry, which is drunk by the poorer people in different parts of Wales. When distilled, twelve pounds of berries yield two quarts of spirit; the pulp, after distillation, affords excellent nourishment for cattle; and the bark, when collected in autumn, is proved, by recent experiments, to be better adapted for the tanning of leather than even that of the oak.

Such are the different uses of the roan-tree; and how very picturesque is the tree itself, when seen among its brethren of the forest, or standing singly in autumn, against a back screen of grey rocks, with its glowing vermilion fruit hanging in rich clusters! Beautifully, too, is the same wild tree, contrasted in many a lone spot, among rocks and waterfalls, with the white-beam tree, or white-leaf tree, characterized by its fine straight stem, and





smooth leafless branches, spotted with white, at the end of which are buds swelled for the next year's shoot, and which give to the parent tree a bold and fine appearance.

WILD CHERRY, ETC.

Observe the beauty of that wild cherry-tree, growing beside the hawthorn, and which

“hangs her flag

In snowy splendour from the crag,”—

flinging alternate shades and sunbeams on the carpet of green moss that extends beneath. This tree, which affects a sandy soil and elevated place of growth, often looks down above a labyrinth of waving branches, when bursting into leaf, and inviting the wild bee from her nest. Children gather the gum in spring, climbing the craggy pathway that leads to their favourite tree: you may hear their merry voice ringing through the dell, and the hurried steps of the frightened squirrel, as he bounds from branch to

branch. Arab children, in like manner, collect gum arabic on the borders of the deserts, from a species of acacia, which resembles that of the wild cherry, though differing in its chemical qualities. This gum, according to the testimony of Hasselquist, sustained more than one hundred men, during nearly two months, without any other substance than a small portion taken occasionally, and suffered gradually to dissolve;—an effect produced, without doubt, in a twofold manner: first, by lubricating the coat of the stomach, and thus preventing it from being acted on by the gastric juice, as also by its nutritious qualities, approaching that of animal gluten, of which the benefit has often been experienced in campaigns. Nor less curious is the fact that the bark of all such trees as furnish this mucilaginous substance possess a tanning quality, as, for instance, that of the gum-producing acacia, which is used in India for tanning leather.

In France, this beautiful tree is admitted as an ornament to parks and avenues; but, though attaining to considerable

height, and attractive when in blossom, it is little more than the beauty of a day. The double-blossomed and red-flowering varieties are even more conspicuous,—especially the former, of which the snow-white petals, elevated on long and slender footstalks, are universally admired.

The wild cherry chiefly affects a sandy soil and elevated situation, and some of the finest specimens are found in Hertfordshire.

Wild plum-trees equally delight in a lofty growing-place, and, when found on commons, are less injurious to pasturage than many of their brethren. Garden plums are mostly derived from them; at first raised from kernels, and afterwards preserved by budding or grafting on plum-stocks.

Cotton may be dyed of a rose-colour by the juice of the wild fruit, combined with muriatic or sulphuric acid; and the bark yields a yellow dye.

The medlar, indigenous in Britain, belongs to the same class and order, and is most frequent in the south of

England. Ranking as a tree, though humble, and often of deformed growth, it is furnished, when growing wild, with shining thorns, which disappear in the cultivated species.

Such, said the old man, are fruit-producing trees of our native land. And very curious is the fact, that, in common with all nutritious fruits, they belong to the class *Icosandria*, which is characterized by the insertion of the stamens into the calyx. Fruits of such as pertain to the *Pentandria Monogynia* are, on the contrary, generally dangerous,—many of them peculiarly fatal. The currant offers an exception, and this is indicated by the insertion of its stamens, in which, though not in number, it accords with *Icosandria*. With the knowledge of this simple fact, a traveller in the most unexplored regions might safely partake of the native fruits.





W.F. del. et lith.

R.B. & R. imp.

ELM.

CHAPTER VIII.

E L M.

Ulmus campestris.

“The tall, abounding elm, that grows
In hedgerows up and down ;
In field and forest, copse and park,
And in the peopled town ;
With colonies of noisy rooks,
That nestle on its crown.”

Hood.

THE aged man and his young companion went slowly up the dell, lingering and listening to the song of innumerable birds, which sang merrily on either side, while the torrent came dancing over its rocky bed, now in shade, again in

sunshine, and its mellow voice blended with the pleasant sound of wind among the branches.

Look at this noble tree, said the philosopher, and let us consider awhile its uses. None among forest-trees are more umbrageous than the elm, which rises to a commanding height, and flings out its branches on every side. The timber of such as grow on a stiff and strong soil is both tough and hard, tenacious also, and not liable to decay or splinter; hence it is in great request for laying the keels of ships, and gunwales, and for mill-wheels, underground pipes and barrels; but when growing in marshy land, or soil retentive of moisture, the wood become porous, and is of little worth.

I have seen the elm in great beauty on the side of a green meadow, which sloped somewhat precipitately from out the valley,—a spot associated with much of loneliness and sylvan beauty, with the soothing sound of falling waters and the song of birds; for the valley from whence the green hills rose, was undwelt in by man; and at the

furthest termination of the meadow spread an upland pasture, where sheep grazed ; and further still, an extensive woodland clothed a rugged acclivity, with its broken bank and summer flowers. Standing alone in umbrageous majesty, there was none other like it ; no woodcutter had ever shortened a single branch, and its stately unlopped head rose as a beacon in the surrounding country.

That elm-tree was the first to welcome the coming back of showers and warm sunbeams, with its light and cheerful green leaves ; and in autumn how beautiful the blended hues of its bright yellow leaves, when the sun shone bright, and the shadow of one leaf fell obliquely on another quivering leaf, till it seemed as if that one bright yellow hue had a thousand varied changes from yellow to the deepest brown.

I have seen the noble tree, when stripped of its leaves by frost and winds, thrown out in bold relief against a cloudy sky, with its grand proportions fully developed. How gracefully spread the branches on either side of

the supporting column, the lower ones forming an ample circumference, and feathering with their twigs nearly to the ground; the second of somewhat shorter growth, the third forming a smaller circle, and thus gradually each tier of branches lessened in their growth, till at length the whole assumed that pyramidal form which renders the elm pre-eminent among its brethren.

Evelyn conjectures that the elm was introduced into Britain by the Romans, in connection with their vineyards. He founded this idea on the well-known fact that elms are less prevalent in the northern than in the southern portion of our island. But the geography of plants had not then attracted the attention of the botanist; trees were admired for their beauty, and said to flourish better in one kind of soil than another; but men knew little of that wondrous law which restricts one plant to a certain locality, and prohibits it from advancing into another, though separated only by an imaginary boundary. Thus, among native plants, that handsome creeper, the lady's seal, or black bryony,

terminates its long range from as far south as Algiers, on the north bank of the River Wear, above Sunderland: among such as pertain to South America, orchideous plants, which are parasitical on trees, and are generally characteristic of the tropics, advance to the 38th and 42nd degree of south latitude.

Those who like to visit the ruins of old trees, may find much to interest them in the celebrated Chequer elm, of which the trunk, reduced to a perfect shell, forms a circumference of at least thirty-one feet. This noble tree was planted in the days of Stephen, contemporary in its origin with the heroic struggles of Queen Matilda with the Empress Maude, while her husband remained a prisoner in the dark holds of Bristol Castle.

Chipstead elm, in Kent, measures fifteen feet in girth; and legends tell, that during the troublous times of Henry V., the neighbouring rustics, unmindful of conflicting claims between the Roses, held their annual fair beneath its branches. Crawley, also, has its memorial tree,

rising beneath summer suns and winter skies, to the height of seventy feet, and measuring thirty-five in girth. And as the elm of Chipstead spread its ample branches over the merry doings of men in Henry's days, when primroses were gathered at Charing Cross, and snowdrops beside the River Bourne, so at the present time, those of the Crawley elm shelter May-day gambols, while troupes of rustics celebrate the opening of green leaves and flowers. Yet not alone beneath its shade, but within the capacious hollow which time has wrought in the old tree, young children with their posies, and weak and aged people, find shelter during the rustic fêtes.

The common elm has many brothers, among which the northern, or smooth-leaved, is perhaps one of the most conspicuous. This graceful species grows well on rocky eminences, and produces a very picturesque effect; the trunk soon divides into long and wide-spreading winged branches, which droop with a kind of graceful negligence, suspending their flowers on long footstalks, of which

the large hop-like clusters are very conspicuous in May and June.

Adventuring further northward than its more stately brother, this graceful tree is invaluable to the natives of cold and windy regions. The wood is preferred by millwrights for every purpose connected with their trade ; and the bark, which is readily peeled from the trunk and boughs for many feet without breaking, is used, especially in Wales, for securing thatch, as likewise for different kinds of tyings, in consequence of its tough yet flexible nature.

Anacréon, in ancient times, spoke of the coming and departing of the swallow tribe, as noting the changes of the season ; the bird of Aristophanes, also, when proclaiming the blessings which are derived by mortals from different species, says, that when the crane flies with her warning voice into Egypt, she bids the sailor hang up his rudder and take his rest, and every prudent man to provide himself with winter garments.

The wych-elm, in like manner, is an unfailing monitor.

One of nature's rarest indications is afforded by that same tree, in his windy home : it seems as if he heard the stealing by of frost, before even its magic power was seen in gemming the rough weeds and lichen-dotted stones ; and the intimation is no sooner heard than given. Unlike the common elm, which retains his verdure to a late period, and, when at length assuming a deep rich colour, contributes to the splendour of autumnal scenery, the foliage of the wych-elm fails suddenly, his leaves curl up, become brown, and flutter from their spray. The traveller who perhaps yesterday took shelter beneath his branches from a sudden storm, sees only a denuded tree, leafless and waving in the wind.

A peculiar property, shared it may be by different forest-trees, but most obvious in the wych-elm, is deserving of brief mention, namely, that of attracting moisture ; and this not only when the tree is full of foliage, but even during winter. The power which leaves possess of absorbing water from the atmosphere by one set of vessels,

and discharging it by means of another, is well known, though rarely obvious, except in the case of water plants, as shown in the white arum. The wych-elm, however, offers an exception; and when the leaves or bark have imbibed a full supply of moisture, the superabundant quantity becomes gradually exuded on the leaves, till it forms drops, which distil on the passer-by.

Possessing, therefore, the twofold power of attracting and rejecting water, this tree occasionally exhibits that curious phenomenon which is fully developed in the raining-tree of the Canaries. On the same principle, currents of air are often felt beneath trees in summer, when little perhaps is stirring elsewhere. The air, being arrested in its progress among the foliage, rapidly descends, and escapes around the trunk, where there are neither branches nor yet leaves. Hence people often say, How pleasant is this breeze, how refreshing, how softly it whispers among the foliage, causing it to quiver and cast dancing lights and shadows on the grass !

“The chequered earth seems restless as a flood
Brushed by the wind. So sportive is the light
Shot through the boughs : it dances as they dance,
Shadow and sunshine intermingling quick,
And darkening and enlightening as the leaves
Play wanton, every moment, every spot.”

Cowper.

Thus sang the poet, mindful of the many causes which combine to produce a twofold purpose,—that of refreshing the weary traveller, and heightening the effect of woodland scenery.

Men in old times made strong bows from the common elm, when yew was scarce, as also arrows, before the use of fire-arms superseded the arrowy sleet of Britain. This appropriation may probably account for the frequency of elms on village greens, of which the Crawley elm, growing beside the road from Brighton to London, furnishes a familiar instance ; and thus beautifully has an historian of forest-trees spoken concerning it :—

“This aged tree, in former ages, might have offered a retreat to some white-robed Druid within its capacious

hollow; in later times to a recluse. Lifting its tranquil head above cottage roofs, which it has sheltered for ages, Crawley elm affords, in its rough and knotted trunk, a source of continual interest to the groups of village children, who cluster around like bees, trying their small strength and courage in seeking to climb the stem, while their fathers stand by and recall the memory of similar attempts.

“Such remembrances invest an aged tree with associations which no works of art can elicit. It seems to live with us and for us; and he who would lift up his hatchet among its aged boughs, would inflict an injury of no ordinary kind. Who could endure to see its venerable head brought low, its still green branches lying in the dust, its giant roots left bare and desolate? The old would miss it as an object on which had rested the affections of days long past; the young would lament it as a tree beloved the most; travellers would seek for it in vain; and the wanderer, returning to his long-left home, would scarcely

know the parental cottage when deprived of the shadowing branches which he had seen wave even in his cradle.”

A forest, spreading over hill and plain, now stooping into valleys, and now climbing precipitous ascents, and then away into the far country, is one of the grandest sights in creation; an insulated tree one of the most beautiful. He who looks upon an aged tree, in the deep recesses of a lonely forest, with younger trees grouping round, regards it with an indescribable feeling of reverence; but he who has seen the tree of his own hamlet from infancy to manhood, feels towards it a degree of tenderness different it may be in degree, yet not in kind, from that which rests on a benefactor.

Yet many such trees have fallen before the rage of modern improvements. For the value of timber is its misfortune, as wrote Gilpin; but the hands that fell an oak can plant an acorn, and this restitution to maternal earth is surely due from those who despoil her of her noblest and most ancient ornaments. Sir Robert Walpole planted with his

own hand many of those magnificent trees that form the pride of Houghton. Among the various actions of his busy life, he speaks of this as having given him the greatest satisfaction in its performance, and most unsullied pleasure in the retrospect.

Men, says Evelyn, seldom plant trees till they begin to grow wise, that is, till they at least attain middle age, and find by experience its probable advantages. Cicero speaks of planting as the most delightful occupation of advanced life; and doubtless, of all pursuits connected with the interests of mankind, one of the most disinterested and truly wise, is that by which a barren waste becomes a scene of waving beauty, sheltering the country, and delighting both the botanist and painter.

Superstitions linger around the elm, derived most probably from remote antiquity, founded, perchance, on truth, but clouded and obscured as years passed on, till adding to innumerable instances of mental obliquity.

And yet the wildest legends fall short of the phenomenon

of living creatures being found deeply embedded in elm-trees. Such creatures, creeping, perhaps, head foremost at the approach of winter into some crack or opening in the bark, and from thence into a hollow in the trunk, found, on waking from their winter sleep, that there was no possibility of returning; or else, while nestling in the bark, and being unable from their position to draw back, annual growths of liber and alburnum gathered round them, still the creatures lived on, deriving air and nourishment from the glutinous fluid of the inner bark, which surrounded their strange dwelling-places.

Foreign substances have been found, in like manner, deeply sunk into the inner bark, and causing no small surprise when first discovered. Names deeply cut, in years long past, have suddenly come to light, and rings and coins have rebounded from the hatchet of the woodcutter.'

"The woodman's heart is in his work,
His axe is sharp and good,

With sturdy arm and steady aim
He smites the gaping wood ;
From distant rocks
His lusty knocks
Re-echo many a rood.

“ His axe is keen, his arm is strong :
The muscles serve him well ;
His years have reached an extra span,
The number none can tell ;
But still his life-long task has been
The timber-tree to fell.

“ Alone he works—his ringing blows
Have banished bird and beast ;
The hind and fawn have cantered off,
A hundred yards at least ;
And on the maple’s lofty top
The linnet’s song has ceased.

“ No eye his labour overlooks,
Or when he takes his rest ;
Except the timid thrush, that peeps
Above her secret nest,
Forbid by love to leave the young
Beneath her speckled breast.

“ No rustic song is on his tongue,
No whistle on his lips ;
But with a quiet thoughtfulness,
His trusty tool he grips,
And stroke on stroke keeps hacking out
The bright and flying chips.

“ Stroke after stroke, with frequent dint,
He spreads the fatal gash ;
Till lo ! the remnant fibres rend,
With harsh and sudden crash,
And on the dull resounding turf
The jarring branches lash !

“ Oh ! now the forest-trees may sigh :
The ash, the poplar tall,
The elm, the birch, the drooping beech,
The aspens—one and all,
With solemn groan,
And hollow moan,
Lament a comrade's fall.”

Hood.



W. F. del et lith.

ALDER.

R. B. & R. imp.

CHAPTER IX.

ALDER OR OWLER.

Alnus glutinosa.

Light quivering on some river brink,
Where stoops the panting hart to drink,
On rocky bank, in glade, or dale,
The alder tells her simple tale.

MORALISTS have said that all trees have characters analogous to those of men. Behold in me, said a widely spreading alder, a vegetable type of one whose facility of disposition enables him to dwell contentedly wherever he sojourns. Such am I, an alder, growing either beside a highland stream, or in quiet hedgerows, in woods, or shading public

roads. In short, I flourish everywhere, except in chalk soils ; and although my wood is soft and brittle when first cut, not even may the oak or elm vie with me in durability ; and various as the places of my growth, so are the uses to which I am applied. At one time my timber is in request for shoe-heels, for ploughmen's clogs, and mill-wheels ; at another, as piles in swamps or under water, an appropriation frequent among the ancients, and commended by Vitruvius, who mentions that the wood of the alder becomes jet black, and nearly as hard as iron. The Rialto is thus founded ; and many of the vast dykes in Holland are strengthened and upheld in a similar manner. Theophrastus notices the use of my bark in dyeing skins, and the moderns have availed themselves of its facility for yielding black, or brown, or red, by the aid of copperas.

Vast forests of my kindred anciently overspread a wide extent of country ; and, from their imperishable quality, few trees are more frequently discovered beneath the surface of the earth. Take, for example, the level of Hatfield Chace, in

Yorkshire, a tract of nearly eighteen thousand acres, yearly overflowed, but at length reduced to arable and pasture land by Sir Cornelius Vermusden, a Dutchman. An innumerable number of prostrate trees were found at a considerable depth below the surface. The roots remained unmoved, but many of the trunks were lying on the ground heaped one upon the other, while a vast number stood erect, broken or mouldered off about midway. This strange uncovering of old trees developed their peculiar characteristics. Oaks, some of which were upwards of thirty yards long, and which sold for fifteen pounds each, were black as ebony, uninjured and closely grained. Ash-trees, on the contrary, were cut to pieces by the workmen's spades, so soft were they, and, when flung up into the open air, turned to dust. But willows, which are softer than ash-wood, by some strange alchemy preserved their substance, and some even remain to the present day. Patriarchal firs had apparently vegetated, even after their overthrow, and their scions became large branches, equal to those of the parent trunk.

But the alders, who could sufficiently admire them? Black as ebony, firm, unchanged, neither striving to vegetate in such a sepulchral place, nor yet foregoing their true character, and shrinking from the light of day, but coming forth unchanged, and bearing a noble testimony to the enduring nature of their tribe.

The opening of that wide morass brought to the minds of some who looked on, historic facts, which had been long forgotten. Many of the old trees had been evidently burnt, some quite through, others on one side; several had been chopped and squared; some were even found to have been riven with huge wooden wedges;—marks by which to substantiate the fact that the vast swamp of Hatfield Chace was once inhabited: but no one knew whether a sudden inundation had swept away the traces of human habitation, or whether the frequent inroads of water had rendered the place a swamp.

Near the root of an old tree, eight coins, pertaining to different Roman Emperors, were discovered; and in some

parts considerable ridges and deep furrows indicated that the morass had been partially cultivated.

Some conjectured that the forest had been felled, and that the trees, being left unmoved, contributed to the accumulation of the waters. This is probable, because whenever the Britons were discomfited, they fled for refuge to the fastnesses of woods, and miry forests; from whence they sallied forth, and fell upon their invaders. Hence, it was determined that the woods and forests should be destroyed; and the order was mercilessly obeyed. Many were set on fire, others cut down, and forests thus felled, by impeding the draining of water, often turned such broad streams as flowed through them, into extensive swamps; vegetable earth, as already shown, gradually accumulated, yet soft and watery; and many ancient woods, in consequence, with the stone huts of the natives, and the ground which they cultivated, merged in wild swamps, beside which, it may be, some aged alder stood like a sepulchral column, the sole memorial of buried homes.

CHAPTER X.

SPANISH CHESTNUT.

Castanea vesca.

“Hail, old patrician tree, so great and good !
Hail, ye plebeian underwood,
Where the poetic birds rejoice,
And for their quiet nests, and plenteous food,
Pay with a grateful voice.”—*Cowley.*

AN old chestnut spoke cheerfully to his young companions. He told them to rejoice in the days wherein their lot was cast.

You are but of yesterday, my children, he said, and know nothing with regard to the olden times. Listen to me, and my words shall teach you wisdom.



W. F. del. et lith.

CHESTNUT.

R. B. & R. imp.

Men call me the old chestnut of Tortworth. That aged tree, say they, stood there when King John came to the throne, and must have been at least five hundred and forty years old. One of their scribes relate that I even then was called by the name which I now bear, and which attaches to me, though little more than a venerable ruin.

Some of you, young trees, have been planted within a comparatively short period; standing singly, or in groups, you embellish homes which had no existence in my young days. Far as the eye could reach, extended a wild forest, or wide common, covered with ferns or rushes; and deer came in troops, to feed upon my nuts in autumn. I have seen the wild boar, with his long tusks and shaggy mane, ranging where now sheep pasture; and wild cattle, such as no one could have met unharmed.

I remember the time when yonder yew first arose from the earth, a small tufted plant, with nothing that indicated its future greatness. Some wandering bird must have brought the berry, which, on account of its

glutinous nature, readily adheres ; or else the wind, rising in his might, bore it from some distant forest ; for none grew within sight. I watched the progress of that young tree, and saw how gradually it advanced from one season to another, till at length its giant arms were nobly tossed on high, and valorously resisted the fierce winds of winter. But now its strength begins to fail, and oaks, beneath which the Druids walked, are failing also.

Time was, when such noble trees were wrested from their right uses ; when the osiers that grew beside the river, were wreathed into hideous baskets, wherein innocent persons suffered ; when trees, rising in umbrageous majesty, concealed within their deep recesses abhorrent rites, concerning which no one dared to speak ; when men saw only in the trees, which God hath planted for beauty and for use, the abode of mysterious or fearful beings, demons whom many ignorantly worshipped ; or viewed them as useful merely for the common purposes of life.

Since then, naturalists have arisen, who have made known

the properties of vegetable matter ; poets have derived their choicest inspirations from trees ; and artists have dwelt beneath them, watchful to transfer to canvas the effect produced by their foliage, or their graceful and magnificent proportions.

But the chestnut, as wrote one who loved our tribe, is the most stately of European trees, exceeding the oak in height, and equalling it in bulk. The foliage exhibits a more decided character : it is glossy and formed into clusters, which are peculiarly elegant when surrounded with florescent catkins. This is the tree which graces the landscapes of Salvator Rosa. He studied it among the mountains of Calabria in every form and attitude, breaking and disposing it in a thousand different shapes, as the exigences of his compositions required. And truly no other tree affords such continual variety :—at one time rising in all its leafy majesty, in some shady recess or rock-encircled nook, safe from the war of winds ; at another, broken and distorted on some high rock, or half-

way down a steep and rugged declivity, beneath which might roll an impetuous torrent; for my wood is naturally brittle, and liable to be shattered by fierce winds.

Some have ascribed to me the honour of being indigenous to Britain; others maintain that Cæsar transported chestnut-trees from Sardis into Italy, on account of the excellence of their nuts, from whence they passed into France and Britain. True it is, that none of our tribe ever prevailed in North Britain, nor have they been observed in the southern portion of the island, except in parks, and avenues leading to country mansions; but those who visit the banks of the Tamar, in Cornwall, may find the chestnut in many a lone spot, as also in the woods and hedges of Kent and Surrey. Anglesey is another of our favourite habitats; and chestnuts were so numerous at one time in the forest of Dean, that Henry II. gave the tithe of all their fruits to Flaxley Abbey. Those noble trees were, doubtless, planted and protected in that royal preserve.

Naturalists have sternly contended the point of our being

aboriginal or exotic; but no doubt is now entertained on the subject. The great profit which arises from the wood when cut into hop-poles, sufficiently accounts for the disappearance of large trees from their growing-places. Nor less striking is the fact, as proving that the chestnut was more common formerly than at present, that many of the oldest houses in London are floored or wainscoted with the wood. The beautiful roof of Westminster Abbey is also constructed of the same material; nor is this surprising, for, according to Fitz-Stephen, noble forests of chestnuts extended round the north side of the metropolis.

Virgil describes my nuts as acceptable with milk and cheese; and still in Italy, as in the north of Europe, they are roasted on small stoves in the streets by fruit-women, who sell them to the passengers. Evelyn also speaks much of them, as equally grateful and nutritious: he says that bread made from the flour is very strengthening, and greatly improves the complexion. He adds, that in Italy it is used in making fritters, which are wetted with

rose-water, and which, when sprinkled with grated Parmesan, are fried in fresh butter.

Time was when my nuts accompanied the wassail-bowl at Christmas festivities; and Milton, when deploring the death of his friend Diodati, and lamenting the few resources of his lonely dwelling, whereby

“to cheat the lonely night,”

alludes to their most ordinary domestic uses.—

“While hisses on my hearth the pulpy pear,
And blackening chestnuts start and crackle there.”

I have spoken of my great age. My girth, at the height of six feet from the ground, was forty-six feet and six inches, about one hundred years since. In the time of ruthless John, I measured eleven yards in circumference, towering above my tributary trees, and commanding a vast panoramic view from my topmost boughs.

Strutt speaks of a brother chestnut, growing in Cobham Park, which measures thirty-three feet at twelve from the

the ground, and forty where the trunk divides. He speaks, too, concerning the beauty of our foliage both in spring and autumn ; in the first, grandly umbrageous, and presenting a fine clear green in its spear-shaped leaves ; in the second, and when falling into

“the sear, the golden leaf,”

gorgeously contributing to the rich and varying tints of woodland scenery.

Mount *Ætna* is celebrated for enormous chestnuts. Our tribe grow nobly there ; their roots are warmed by its immense furnace, and hence such trees as are scattered over the mountain are probably the largest in the known world. The *Castagna di Cento Cavalli*, which derives a name from being sufficiently large to shelter one hundred horsemen, is hollow within, and contains a dwelling-house, with a contiguous oven for drying chestnuts and almonds.

Though not aspiring to such dimensions, because of northern growth, and chilled, doubtless by the cold of a

northern climate, I can offer a safe retreat to innocent sheep, which lie down within my hollow trunk, and which have taken the place of wild boars and ravening wolves. I first uprose from the earth in the reign of Egbert, the first king of England, and last of the Saxon Heptarchy. Terrible conflicts were carried on around me, while yet a sapling, between the Britons and fierce Danes, and wonderful it seems to me, in looking back, that I was never trodden to the earth.

Upwards of a thousand years have rolled over my green head. Generations—even whole nations have been swept from the face of the earth since my first emerging to the light; yet still I remain unscathed, and from one winter to another have defied the howling blast, with my leafless branches. Springs returned, waking up the primrose at my roots and the snowdrop beside yon rushing stream, reclothing me with leaves, and bidding the summer sun to ripen my rich brown fruit. My tranquil existence, unlike that of men, who are troubled oftentimes, though enjoined to dwell in

peace, shaded by nought of evil, and unchequered by the viscissitudes of time, is thus perpetually renewed, and around me have spread branches in wild and joyous profusion. But a change is passing over me, and my day's work is nearly done; yet I am not solitary in my old age: my venerable roots are nearly hidden by a glad progeny of bright green mosses, birds still build their nests among my branches, and I hear the glad voices of such as recall to my remembrance the warbling chorus that used to resound from the midst of my widely spreading foliage in the days of Egbert.

Would you contemplate the height, and breadth, and magnificent proportions of our tribe, visit the wildest portions of the Apennines, and roam among their rocks and dingles, beneath the shade of innumerable chestnuts, —through forests, such as your fatherland may not boast, now rapidly ascending almost perpendicular heights, which the most reckless traveller might scruple to attempt, and now pressing on through a vast brotherhood of enormous

trees, which, in shady grandeur, form overarching canopies of mingling boughs.

A recent traveller relates, that having penetrated that extensive forest which covers the Vallombrosan Apennines for nearly five miles, he came unexpectedly upon those festive scenes which are not unfrequent among the chestnut range. It was a holiday ; and a group of peasants, dressed in the gay and picturesque attire of the neighbourhood of the Arno, were dancing in an open and level space, covered with smooth turf, and surrounded with magnificent chestnuts, while the inmost recesses of the forest resounded with their mirth and minstrelsy. Some beat down the chestnuts with sticks, and filled baskets with them, which they replenished from time to time ; others, stretched listlessly upon the turf, picked out the contents of the bristling capsules in which the kernels were intrenched, for these, when newly gathered, are equally sweet and nutritious ; others again, and especially young peasant girls, pelted their companions with the fruit. It was a joyous

scene, and one which carried back the imagination to those fabled regions,

“Where loaded trees their various fruits produce,
And clustering grapes afford a grateful juice,
Where rains and kindly dews refresh the field,
And rising springs eternal verdure yield.
Nor want nor famine the glad natives know,
Nor sink by sickness to the shades below.”

CHAPTER XI.

BIRCH.

Betula alba.

“ On the green slope
Of a romantic glade we sat us down,
Amid the fragrance of the yellow broom,
While o’er our head the weeping birch-tree streams
Its branches, arching like a mountain shower.”

Wilson.

I HAVE stood for ages, said a very old birch-tree, that clung with her strong roots to a rugged bank, overlooking the vale country near Dudcombe. My usual haunts are rocks and waterfalls, though affecting at times moist hedges and damp woods. You can hear a little stream rippling through



W.F. del et lith.

R.B. & R. imp.

BIRCH.

the grass, and laving the bank whereon I grow : my long flexuous roots derive refreshment from its waters, and hence I am unaffected by the dryness of my sterile growing-place.

Time was when I grew in the depth of a wild forest that overshadowed the greater part of Gloucestershire ; but a clearing was made at length, and I remained an isolated tree, right and left of which extended a denuded tract, while the remnant of the forest to which I had pertained served as a back-screen to the settlement. That clearing was the work of one Roger de Lacie, who gave to the few acres which he cultivated the name of Wicke, signifying a dairy farm. For this purpose it was well adapted, being screened from the cold east wind by a rising hill on which the Romans had encamped. It was also well watered by a clear stream, that abounded with fish, and which flowed on through the deep forest, till, being swelled by several tributary rills, it entered the Severn at the termination of the vale country. About fifty houses were built on the

sloping side of a gradual ascent from the valley that lay in front ; they were dwelt in by men who worked on the farm, or looked after the cattle when led out to pasture on the hills where free of wood. The thane, De Lacie, who had the privilege of going where he pleased, lived there, as also a priest.

This wild and secluded spot formed one of a series of valleys that opened towards the river, and which had evidently been hollowed out by the receding waters of the deluge. Some of these valleys were filled with trees, and it was difficult to penetrate them ; others resembled long and narrow dingles, their precipitous sides being covered either with underwood, or with a small and fragrant wild thyme that grew about the ant-hills ; others, again, were free from timber in their depth, but, here and there, noble groups of beech-trees still lingered in all the pomp of sylvan majesty. It was evident that Cæsar never penetrated into these beautiful valleys, for he wrote in his Commentaries that the beech is not among the native forest-trees of

Britain ; but the beech grew there profusely, no other kind of timber-tree was seen, except by chance, when, in a sunny glade, amid the surrounding forest, an oak, or ash, or elm sprang up from some acorn or mast which the wind had planted. As the hills and vales were then, so are they now, wild, solitary, and yet cheerful, with here and there a cottage in the depth of a lone glen, for men began to fix their habitations where heretofore there were no traces of industry, and green meadows and fields of corn occasionally met the eye.

A church was built about the same time near the settlement at Wicke, for the people to assemble in, or rather a stone building of the simplest construction. It stood on the only level portion of the clearing, and commanded an extensive view of the wild and wooded district in the centre of which the town was built. A piece of ground was also appropriated for a burying-place, and when death had entered the settlement, the dead were laid there. Their friends liked to inter them on the south side of the sacred

edifice, that they might have the benefit of aves and paters, for such was the fond hope that many entertained. There was something very affecting in the sight of these simple mounds, rising in the midst of a wild country, with a few houses clustering near, and, far as the eye could reach, a dense forest clothing both hill and dale. Men had not learned to minister to the vanity of the living by splendid monumental eulogiums, neither did they raise aught upon their graves, excepting a small mound of earth, or, perhaps, a simple stone, to distinguish the resting-place of the thane or of his family. Yet the practice of interring in separate graves indicated an improving condition of society, more especially as the persons who lay beside the church had been humble while living,—working-men, who wrought in the fields, and whose wives and children were employed upon the farm. In former times, monuments, even of the plainest description, such as an unhewn stone or a mound of earth, rather indicated a warrior's resting-place than the low couch of one who had faithfully served his Maker in

fulfilling the duties of his allotted station,—although that station was less than nothing in the eyes of his fellow-men. And so distinctive were the mounds of earth that marked the burying-places of the dead, that he who visited the then cultivated parts of Britain, might readily distinguish, in such as met his view, the different periods of interment.

But the mounds of earth in the neat churchyard betokened that the days of Paganism had passed by; for the blessings attendant on the introduction of Christianity were not confined solely to the living. Christianity broke down the altars of false deities, and put a stop to human sacrifices, and raised homes for men to dwell in, where the names of husband and of wife, of parents and of children, were recognized and held in honour. Such were its foundation acts, and from these, as from a common centre, emanated all those virtues and comforts which minister to the well-being of society. The dead were respected as having held communion with the living; and hence originated the solemn burial service, and the habit of interring

them, not as heretofore in wild and desert places, or alone in the far-off wilderness, but in consecrated ground and with religious rites, which bade the mourners not to sorrow as those who have no hope. Yet still that quiet place where the villagers laid their dead to rest, with its green mounds and primitive-looking church, was at best but a sad and solemn spot, even when the cheerful beams of a summer sun shone bright upon it. How lone and awful, when, at the witching hour of deep midnight, the solitary church stood forth in its sepulchral whiteness, and not a sound was heard except the rushing of the stream, the murmur of the wind among the forest trees, or the startling whoop of the solitary owl! It was a spot reclaimed from the forest; for excepting the few acres which the Thane de Lacie cleared, eastward and westward, as far as the eye could reach, northward and southward too, extended one vast sweep of woodland, with breaks of lawn and thicket, and occasional spaces of common land which had evidently been denuded, at remote periods, by Saxons, Picts, or

Danes. Here, then, all those who had successively inhabited the contiguous dwellings were laid side by side in their undistinguished graves; and, since the father of the thane cleared that lone spot and gathered his vassals round him, it was sorrowful to think how quickly those mounds had risen. Here they lay, and the moon shone cold and clear upon them, and it shone also upon other places where the dead were lying; for, throughout this wild and lonely region, barrows and tumuli abounded—the Briton and the Roman, the Saxon and the Dane, had laid them down in by-gone days, as generations appeared and vanished. Westward of the village a considerable mound of earth might still be seen: dead men were there;—fierce Saxons in their days of pride,—war-chiefs who came in their pirate vessels up the river, and carried death and desolation on either side. Further on, arose a considerable tumulus, where the Danes interred, in after years, many of their companions who fell during an encounter with the Saxons. This tumulus was beside the brook Afonig, at that part

where it enters the vale country. No rites that breathed of hope and peace to the survivor attended their interment. Their chief was buried, according to the custom of his country, with all his ornaments and arms, his horse, and even his wealth and plunder ; his men lay round him, each with his sword and spear, and above them a huge mound of earth was cast up, surmounted with a stone. Northward of the village, and under the west side of a ridge of hills which separated the vale from the hill country, and near a small brook shaded with willow-trees, was seen also another tumulus or barrow containing a stone sepulchre. It was opened, in after years, by some labourers when digging for stone, and found to contain a perfect skeleton. The bones were fresh and firm, and the teeth white as ivory ; over the head hung a helmet so corroded by rust as to fall to pieces on exposure to the air. No other trace remained, excepting some rude characters which designated the year 1000 : the year, most probably, when the spirit which inhabited that unsightly skeleton ceased from among

the living. This period answers to the twenty-first year of King Ethelred the Unready, when the piratical Danes made a great inroad upon the country : they sailed up to the mouth of the Severn, and were fiercely repulsed by the thanes who resided along its banks and in the hill country. The skeleton which lay within the tumulus was, therefore, most probably that of one of the thanes who were slain about the time.

Thus largely discoursed the old birch, for age is sometimes garrulous, and takes pleasure in recounting past events. Then went on the same tree to speak concerning his many uses, and the places of his resort.

Growing at one time beside gleaming waterfalls, that flash and sparkle in their downward course, and wind joyfully through meadows gay with flowers, over which the citron and the myrtle bend in mingled beauty ; at another, on the summit of windy mountains, or in cold and frost-bound regions,—I shed blessings on the peasant who dwells beside me.

My leaves afford a yellow dye, and, in spring, are covered with a glutinous liquor, which concretes into a kind of manna. My boughs, when strewed upon the fields and exposed in autumn to the frosts, make excellent manure ; and my wood yields a cheerful red for dyeing—with the addition of copperas, deep black—and also brown, which is used in dyeing thread for the nets of fishermen. And my bark, how many are its uses ! Thrifty men, who sit beside the blazing hearth when my branches throw up a clear bright flame, and follow the example of their fathers in making their own shoes and those of their families, tan the hides with my bark. Kamtschadales construct from it both hats and vessels for holding milk ; and the Swedish fisherman his shoes. The Norwegian, also, covers with it his low-roofed hut, and spreads upon the surface layers of moss, at least three or four inches thick, and, having twisted long strips together, he obtains excellent torches, with which to cheer the darkness of his long nights. Fishermen, in like manner, make great use of them, in

alluring their finny prey. For this purpose they fix a portion of blazing birch in a cleft stick, and spear the fish when attracted by its flickering light.

If a hole is bored into my trunk when the sap begins to rise, a sweet liquor freely distils, and this, when fermented, yields a pleasant beverage. Four or five punctures thus made in a large tree produce nearly its own weight in sap, without any material injury. When the season changes, this vegetable fountain gradually decreases, but again flows forth in spring. Thus does my friendly trunk yield to the northern peasant both light and fuel, a pleasant beverage, with cans for holding milk; torches formed from my bark enable him to entrap his finny prey, and render cheerful his otherwise dark dwelling. Finland mothers form of the dried leaves soft elastic beds for their children; and from me is prepared the *mona*, their sole medicine in all diseases. My buds in spring exhale a delicious fragrance after showers, and the bark, when burnt, serves to purify the air in confined dwellings.

In countries where ptarmigans abound, my seeds mostly furnish their winter fare. Who has not read concerning that wonderful bird,—clothed in summer with pale brown or ash feathers, in winter becoming of the purest white, and scarcely to be distinguished among her snowy haunts; which braves the severest cold, and is found in the northern parts of Europe, even as far as Greenland; which avoids the heat of summer, and prefers the sharp frosts and wind on mountain tops, ascending their sides when the snow begins to melt, till, having gained the highest elevation, he burrows in the snow?

On the borders of those vast lakes and swift rivers that flow over stony beds in the north of Europe, grow those gigantic trees among my kindred, the bark of which suffices to form a large canoe. And so indestructible is its quality, that traders who visit Lapland in search of bark often find large trees lying prostrate, from which the wood has gradually mouldered away, while the bark remains like a hollow cone without the slightest change.

Such giant trees are found in the wildest solitudes among primeval forests, where the sound of the woodman's axe is never heard. Linnæus spoke of those vast forests as extending to the base of the Lapland Alps, and that, ascending their bleak sides, they went on to within two thousand feet below the line of perpetual snow, although diminishing in growth the higher they advanced; below which point even such of the hardest forest-trees that had accompanied them went no further, and our kindred became dwarf and stunted, with short thick stems and stiff and widely-spreading branches, prepared to resist the strong winds from the north. And yet, as if unwilling to relinquish their ancient empire, they still proceeded, becoming even more stunted, till their topmost boughs might be surveyed from a slight elevation. Here, then, is their utmost boundary, and at this, also, the dwarf crimson bramble and common heath cease to diversify the sterile soil, although alpine coltsfoot and the *Pedicularis sylvatica* accompany our tribe to its utmost boundary.

Elegant varieties among my kindred may be seen in the romantic vale of the Lugwy, near Bettws, North Wales ; and on the margins of lakes in Westmoreland and Cumberland are trees that equal, in size and beauty, those of Norway and of Sweden. The rocks of Aberfeldy are also varied with magnificent birch-trees ; they aspire to the interest of classic ground, and thus beautifully has the Scottish bard sung concerning them :—

“ Now simmer blinks on flowery braes,
And o’er the crystal streamlet plays,
Come let us spend the lightsome days
In the birks of Aberfeldy.
Bonny lassie, will ye go
To the birks of Aberfeldy ?

“ While o’er their heads the hazels hing,
And little birdies blithely sing,
Or lightly flit on wanton wing
In the birks of Aberfeldy.

“ The hoary cliffs are crown’d wi’ flowers,
White o’er the linns the burnie pours,
And rising weets wi’ misty showers
The birks of Aberfeldy.

“ Let fortune’s gifts at random flee,
They ne’er shall draw a wish from me,
Supremely blest wi’ love and thee,
In the birks of Aberfeldy.”

The pre-eminent beauty and utility of my silver bark has originated the same name, with little variation, throughout Europe. Derived from *birka*, or *birke*, it aptly recalls to mind peculiarities which pertain to me; for who has not read concerning its beautiful laminæ used by the ancients, like papyrus, for writing-tablets, before the invention of paper, and on which the works composed by Numa were discovered in his tomb in a legible state, four hundred years after his interment, according to the testimony of Plutarch and of Pliny?

The latter historian makes allusion also to the fasces, or bundles of birchen rods, that were carried by the Lictors before Roman magistrates, with an axe bound up in their middle and appearing on the top.

I have spoken concerning my origin and the gradual changes which time produced in the surrounding country ;

that the wide forests yielded to pasturage for sheep and cattle, and that the dwellings of civilized men uprose where the savage had roamed with his bow and arrow. My branches, gently waving in the wind, awakened in those days no feelings of dread with truant urchins, for all might be truants then, if so it pleased them. But at length a scribe arose, who thus wrote concerning my ductile twigs : "The civill uses whereunto the birch serveth are many, as for the punishment of children both at home and abroad; for it hath an admirable influence upon them, to quiet them when they wax unruly, and, therefore, some call the tree Make-peace."

Alas ! since then how many looks askance have been turned towards my branches by those who have felt their influence ; the more especially when growing on a village green, or beside one of those small dwellings where sat, in olden times, a matron of no small importance, eyeing her urchin throng and turning round her spinning-wheel.

“ A matron old, whom men school-mistress name,
Who boasts unruly brats with birch to tame ;
They grieven sore, in piteous durance pent,
Awed by the power of this relentless dame,
And, ofttimes, on vagaries idly bent,
For unkempt hair, or task unconned, are sorely shent.

“ And all in sight doth rise a birchen tree,
Which learning near her little dome did stowe ;
Whilom a twig of small regard to see,
Though now so wide its waving branches flow,
And work the simple vassals mickle woe.
For not a wind might curl the leaves that blew,
But their limbs shuddered, and their pulse beat low ;
And as they looked they found their horror grew,
And shaped it into rods, and tingled at the view.”

Shenstone.

With others of my kindred no such sad thoughts are blended. The weeping birch, of taller and more rapid growth, is seen most frequently in parks and pleasure-grounds ; and the elegant dwarf-birch grows on mountains and wet heaths, far from the village-school. Verging, also, on the line of perpetual snow, he is noticed by Linnæus, in his Lapland tour, and affords a striking illustration of the

fact, that such among our tribes as grow on mountains are rarely found elsewhere, except in marshes ; the clouds that rest on mountain tops keeping the air in a moist state, as fogs in meadows and marshy places.

The Laplander owes to this fragrant tree fuel for the fire, which he is obliged, even in summer, to keep within his hut, in order to defend him from the mosquitoes ; and the twigs, covered with reindeer skins, form his bed.

And thus, wherever growing, whether beside gleaming waterfalls, on rocks, by rivers, or in those stern inhospitable regions where there is darkness during half the year, the birch is equally pre-eminent for beauty and utility.

CHAPTER XII.

WAYFARING-TREE, OR MEALY GUELDER-ROSE.

Viburnum Lantana.

“Throwing up into the darkest gloom
Of neighbouring holly, or more sable yew,
Her silver globes, light as the foamy surf,
That the wind severs from the broken wave.”

Cooper.

MINE is a cheerful growing-place, and pleasant is the work assigned me, said a guelder-rose. Listen to the rippling of the stream that laves my roots, and to the singing of birds among my branches; listen, also, to the humming of the bee, and the chirp of grasshoppers. We are quiet here, yet cheerful; and far and wide among the coppice-wood and sapling trees that clothe the steep descent into the

valley, are many of my brethren,—each in his right place, and having his daily work assigned him.

Observe my finely serrated oval leaves, and radiated down, each filament consisting of several rays diverging from a point, and my white blossoms cloven half-way, that form in their aggregate numerous globes of pale scented petals. Beside me often grows a mountain ash, with his bright clusters of scarlet berries; but those who pass this way more generally stop to admire the wayfaring-tree. Perhaps in autumn the rich crimson hue of my leaves attracts their notice; in spring my appearance is very unpretending: and yet thus beautifully has a nameless poet sung concerning me:—

“Wayfaring-tree! what ancient claim
Hast thou to that right pleasant name?
Was it that some faint pilgrim came,
Unhopedly to thee,
In the brown desert’s weary way,
’Midst thirst, and toil’s consuming sway;
And there, as ’neath thy shade he lay,
Blessed the wayfaring-tree?”

“Or is it that thou lovest to show
Thy coronals of fragrant snow,
Like life’s spontaneous joys that flow,
In paths by thousands beat?
Whate’er it be, I love it well,
A name, methinks, that surely fell
From poet in some evening dell,
Wandering with faucies sweet.

“A name, given in those olden days,
When ’midst the wild wood’s vernal sprays
The merle and mavis poured their lays
In the lone listener’s ear;
Like songs of an enchanted land,
Sung sweetly to some fairy band,
Leaning with doffed helms in hand,
In some green hollow near.”

CHAPTER XIII.

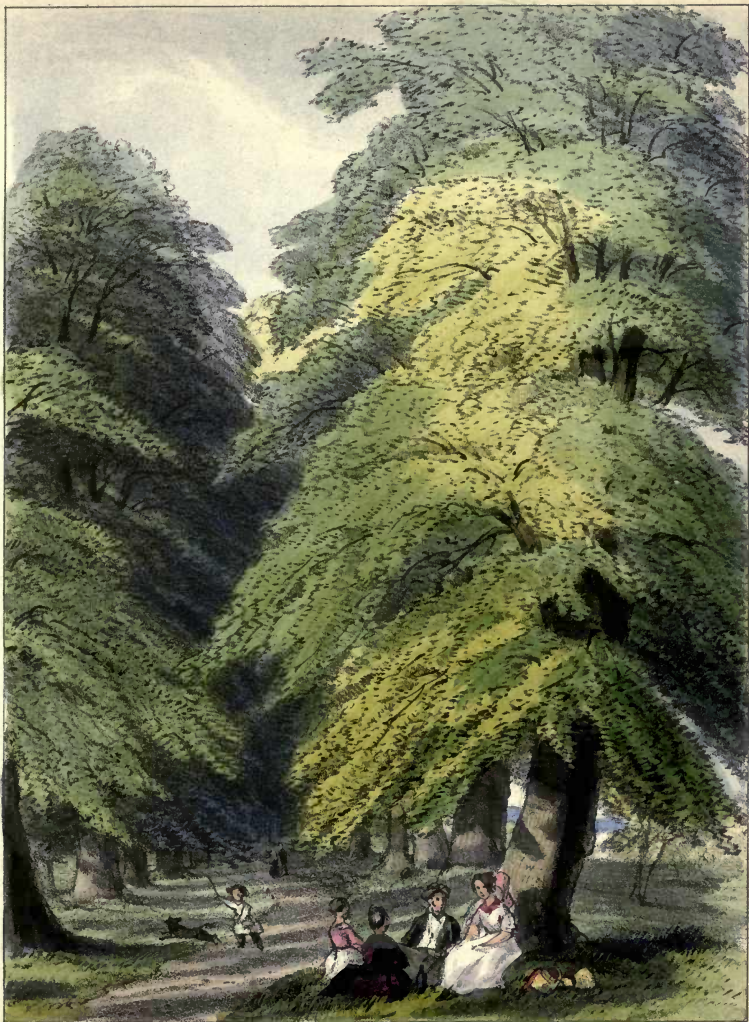
LIME OR LINDEN-TREE.

Tilia Europæa.

“The stately lime, smooth, gentle, straight, and fair,
With which no other dryad can compare,
With verdant locks and fragrant blossoms deckt,
Doth a large, even, odorate shade project.”

Cowley.

HEAR you not what the poet sang concerning me, mindful of my stateliness and sylvan beauty, my fragrant blossoms and pleasant shade? Hear, also, one of your oldest botanists. The lime, or linden-tree, saith Gerard, “waxeth very grate. and thicke, spreading forth his branches wide and far abroad, being a tree which yeeldeth



W.F. del et lith.

R. B. & R. imp

LIME.

a most pleasant shadow, under and within whose boughes may be made brave summer-houses and banketting arbors." And lastly, the just eulogium of Evelyn, when he says, "Is there a more ravishing or delightful object, than to behold some entire streets and whole towns planted with linden-trees, in even lines before their doors, so as that they seem like cities in a wood? This is extremely fresh, and pleasant to the eye, of admirable effect against the epilepsy, for which the delicately-scented blossoms are held prevalent, and screen the houses both from wind, and sun, and dust, than which there be nothing more desirable, where streets are much frequented."

Thus has my tribe been justly eulogized from one generation to another, said a noble lime-tree, whose waving branches swept the walls of an old baronial mansion—Moor Park in Herefordshire.

I have seen one generation after another occupy the old house; the young bride and bridegroom, in their youth and beauty, passing across the threshold with music and at-

tendants, and guests to welcome them; and I have seen the same young bride and bridegroom repass that threshold in after years, yet not with light and joyous steps, but borne separately, with nodding plumes and palls, and mutes, and mourners following two and two. My old branches have waved over many such, from the days of Elizabeth to the present time; many a bridal party and many a funeral has passed beside me, and I have noted the wondrous changes that years have wrought.

Yet still I stand in my umbrageous majesty, rising to an elevation of one hundred feet, and containing eight hundred and seventy-five feet of timber in my solid bulk; nineteen horizontal branches, from sixty to seventy feet long, form a magnificent canopy of waving boughs; and the straight and taper column, by which they are sustained, measures seventeen feet at three feet above the ground.

My leaves support a great variety of evanescent insects, such as moths and butterflies, with others that find a

shelter among the interstices of my bark. Nor is this surprising; for my leaves drop honey, and hence the humble-bee is my constant visitor, humming at her work, and making cheerful the loneliest places. And why? because my tiny friends have in general large families to support. A single female aphis is often the mother of one hundred young ones. She has therefore a pointed kind of proboscis, with which to pierce the under surface of my leaves, and thus to obtain nutriment for their support. The sweet and viscous juice which exudes, in consequence, is also attractive to winged insects, such as wasps and flies; and the plodding ant, who constructs her nests among my roots, often ascends the trunk, in company with her relatives, to share in the genial banquet; but, though free to all, the common bee uniformly wings her way to the fragrant flowers,—she prefers extracting from them the sweet juice, whereby to replenish her honey-bag.

Listen to the author of the *Georgics*, when speaking of his bees. He well knew how much they delighted in my

blossoms, and how excellent the honey produced by such as frequented them.

“I chanced an old Corycian swain to know,
Lord of few acres, and those barren too,
Yet, labouring well his little spot of ground,
Some scattered potherbs here and there he found :
He, therefore, first among the swains was found,
To reap the product of his laboured ground,
And squeeze the combs with golden liquor crowned ;
His limes were first in flower, his lofty pines
With friendly shade secured his tender vines.”

Travellers relate that the famous Kowno honey is made exclusively from my flowers. Pallas will tell you, that the *lîpez*, or genuine linden-honey, which is of a greenish colour and delicious taste, flows from the same vegetable fountain, and is taken from the hive immediately after the neighbouring lindens have been in blossom. Nor is this all; the Swiss make a favourite beverage from them, and in the south of France an infusion is used for cough and hoarseness; at Nîmes also, active boys climb to my topmost

boughs, and eagerly gather the fragrant blossoms, which their mothers catch in their aprons, for the same purpose. China may boast concerning her fragrant beverage; but tea produced from my blossoms is soft, well-flavoured, and saccharine, in taste resembling liquorice; and Missa, the French physician, obtained from my fruit a substance not unlike chocolate. This experiment was repeated by Margraff with equal success; and probably some of our American brethren may yield a produce more completely similar. Hoffmann recommends an infusion of my blossoms for inveterate epilepsy, and Dr. Swediaur as an antispasmodic.

Nor less various are the benefits conferred by my bark and wood. Sannagaro distinguished me by the epithet *incorruptible*, "*La tiglia incorruptibile*," in allusion to the imperishable nature of my papyraceous coating. Hence many valuable works were committed to my charge. You may see a work of Cicero written on my inner bark, in the library at Venice; and from the outer, Carniolan peasants prepare a kind of coarse stuff. When macerated

in water, the filaments make excellent ropes and fishing-nets, and the inner bark is manufactured into Russia matting, for protecting fruit-trees and for packing. My wood—how soft and light—how smooth and close-grained—how privileged in never being worm-eaten! It forms a choice material for elegant Tunbridge ware; and from it the celebrated sculptor Gibbons, the English Lysippus, carved his fruits and flowers, of which exquisite specimens are seen in the choir of St. Paul's Cathedral.

“Smooth linden best obeys
The carver's chisel; best his curious work
Displays in nicest touches.”

Artists, also, find my charcoal invaluable for sketching; and with regard to the humbler uses of my wood, I may briefly state, that it is preferred for leather-cutter's boards, and turning. Nay, so numerous are the valuable purposes to which my bark and wood, my leaves and blossoms are applied, that far back as the days of Pliny I was called the tree of a thousand uses.

And with equal justice may be applied to the stately and almost imperishable linden, the observation of one who loved our tribe,—that we stand as houses not built with hands, proclaiming to the viewless winds and passing clouds, to birds and animals, and swiftly-revolving seasons, the mutual dependence that subsists throughout creation ; to the heart of man, the love and wisdom and sustaining power of his Creator, who first called us into being, and who has ordained that we should exist for ages.

Thus, perchance, men thought when they planted us in the spacious areas of English towns, and such, doubtless, was the opinion of Evelyn, who caused us to be arranged in St. James's Park, after the manner so much admired throughout Holland and Flanders. He preferred us before many of our forest brethren ; our taper and straight columns, and beautifully branching cones, especially delighted him, when standing either singly or in groups. That distinguished naturalist, our historian,

sought out noble trees, with the enthusiasm of a pilgrim in quest of some distant shrine, and when found, he did not lightly pass them by. The old linden-tree of Soleure, in Switzerland, said he, "is right noble and wondrous to behold. A bower composed of its branches is capable of holding three hundred persons sitting at ease; it has also a fountain, set about with many tables, formed solely of the boughs, to which men ascend by steps; and all is kept so accurately and thick, that the sun never looks into it."

And yet, however wonderful is the old linden of Soleure, it falls short of the magnificent tilia of Neustadt, in the Duchy of Wirtemberg, from which the city derives a name, being called Neustadt of the great tree. The trunk is twenty feet, and the extent of its branches four hundred and three, spreading from north to south one hundred and forty-five feet, and from east to west one hundred and nineteen. Eighty-two stone columns still remain, which princes and noble persons have set up, either as memorials of their visits, or to uphold the vene-

rable branches of this patriarchal tree. Time and war overthrew many such, and some, that were elaborately ornamented, have been greatly injured, or else lie prostrate, memorials of foreign invasion and civil discord, when rude soldiers bivouacked under the branches of the old lime of Neustadt.

But neither intestine broils, nor yet foreign aggressions, have marred the noble lime-tree which grew on the small patrimonial farm that pertained to the ancestors of Linnæus, beneath the shade of which he played in childhood, and from which they derived the surnames of Lindelius, Tiliander, and Linnæus. That noble tree still blossoms from year to year, beautiful in every change of season ; its leaves in spring of a yellowish green ; its bark always smooth ; its blossoms small and yellowish-white, shedding the most delicious fragrance, and spreading a ready banquet for the industrious bee. A passer-by might fancy that her relatives, in swarming, had settled among the branches ; but the sound is merely the grateful hum of innumerable labourers who have flown from the adjacent gardens.

Who has not felt the power of such associations, as connected with the lime? And thus vividly has one of our historians brought them before the mind. "How often," said he, "in early youth have I stretched myself on the turf beneath its impenetrable shade, and listened to the mingled hum of myriads of bees when busily collecting honey among its fragrant flowers, when no other sound was heard in the summer air, except the occasional, though rare, twitter of the skimming swallow, or the distant cooing of the ring-dove: when all was silent on earth, save the gentle cropping of the nibbling sheep, or the lowing of kine from the shallows of the river, whence the raging heat had driven them."

CHAPTER XIV.

POPLAR.

Populus.

“No tree in all the grove but has its charm,
Though each its hue peculiar ; paler some,
And of a wannish grey : the willow such
And poplar, that with silver lines his leaf.”

Cowper.

“Look at that formal row of poplars : what have they to recommend them ?” Thus men speak,—said a stately poplar. I often hear those ungracious speeches ; and yet classic poets celebrate our family, and Homer compared the fall of Simoisius to the overthrow of a noble tree.

“ Fair Simoisius, whom his mother bore
Amid the flocks on silver Simois’ shore ;
Short was his fate ! By dreadful Ajax slain,
He falls, and renders all their cares in vain !
So falls a poplar, that in watery ground
Raised high the head with stately branches crowned,
(Felled by some artist with his shining steel,
To shape the circle of the bending wheel.)
Cut down it lies, tall, smooth, and largely spread,
With all its beauteous honours on its head ;
There, left a subject to the wind and rain,
And scorched by suns, it withers on the plain.
Thus pierced by Ajax, Simoisius lies,
Stretched on the shore, and thus neglected dies.”

This description alludes, most probably, to our brother the aspiring Lombardy or Po poplar, which rises to an astonishing height on the plains of Italy, and rivals the far-famed cypress in its majestic simplicity. This tree was deemed sacred to Hercules, “*populus Alcidæ gratissima*,” and was considered as an emblem of courage, according to the legend which assigns to Hercules the vanquishing of his enemy in a poplar grove, but more probably because he destroyed the monster with a massive poplar trunk—

fit baton for one endowed with superhuman strength. Certain it is, that strong men, who conquered in feats of wrestling, or who pertained to the altars which superstition erected to the memory of Hercules, were decked with chaplets, entwined from our kindred twigs ; and that the altars were adorned in like manner.

“A double wreath Evander twined,
And poplars black and white his temples bind.”

Virgil.

Beautiful is the effect produced by different members of our family, when growing in fertile soils on river banks,—

“Tall poplars trembling o’er the silver flood,”—

especially when contrasted in our singleness and beauty with the umbrageous majesty of the oak, the beech, or elm, or of woodlands, that form a background to the river and its trees. In moist places our services are frequently invaluable ; and the vast extension of our roots, with an

inherent property for imbibing water, have caused many bogs in the level parts of England to become drained in a considerable degree, and also superficially improved by the vegetable mould produced by our fallen leaves. We grow, also, in dry places, on waste lands especially, and such as are unfit for tillage ; and our wood, not being liable to take fire, is consequently desirable for cottages and stables. A red-hot poker, falling on a board of poplar, would burn its way without causing more combustion than the hole through which it passed ; the timber, if kept dry, is also durable, and the poles may be used for spars. Care must, however, be taken to remove the bark : or otherwise, it is appropriated by insects, which ultimately destroy the timber.

Our buds, when beginning to unfold in spring, yield a balsamic resinous substance on the slightest pressure, and this, when extracted by spirits of wine, smells like storax. From these, in common with the buds of the fir and birch, industrious bees provide the gummy material

called *propolis*, which they employ not only in finishing the combs, but in rendering every chink or orifice impervious to the weather, or to the insidious attacks of their enemies.

Insect tribes resort to poplars of different species, and become identified with their favourite trees. Among these, the nocturnal *Phalæna gemina* prepares for herself a nest in October, when about to undergo a transformation, by enclosing herself between two leaves, having previously united the edges by means of numerous threads. A delicately effused white web may also be observed on our leaves in spring and summer. This web is produced by the *Erysiphe adunca* before arriving at maturity,—considered as the most beautiful of the genus, and resembling little sparkling stars, when examined under a pocket magnifier.

Our small family contains only three members, the black, the white, and the trembling.

The first, of tall growth, with smooth bark, affects rivers and wet shady places, equally with woods and plantations

where the soil is moist. Every part of this valuable tree answers some important purpose, or is associated with an interesting fact in natural history. The bark, being light, like cork, serves to support the nets of fishermen; the inner bark is used by the Kamtschadales as a material for bread; and the roots, which readily dissolve into a gelatinous substance, and becomes speedily coated over with a tubular crustaceous spar, was formerly employed to promote the joining of fractured bones. The boards afford durable and neat-looking floors for rooms, though liable, from the softness of their nature, readily to take impressions. Brooms are made from the twigs, and paper is manufactured from the cottony down of the seeds. In Flanders an incredible number of clogs are made from poplar-wood. Horses, cows, and sheep browse readily upon this valuable tree, and numerous insects resort for protection to its bark, or raise their small citadels upon the leaves. The red substances resembling berries upon the leaf-stalks, large as a cherry, gibbous on one side, gaping

on the other, are occasioned by an insect called *Aphis bursariæ*, which inhabits these angular dwellings.

The black poplar attains a considerable size on the banks of the ancient Eridanus, and there perpetually distils its amber tears. Hence has this tree been identified with the hapless Heliades, who, while inconsolable for the loss of their brother Phaeton, were, as poets tell, metamorphosed into trees; but of what kind, the poet has not thought fit to mention, though most probably the black poplar, which reflects its stately image in the classic waters of the Po, and derives its cognomen from that country.

Those who stand beside a running stream in autumn, where grow black poplars, may observe, when a random wind is hurrying in and out among the branches and scattering the seeds in all directions, how wonderfully each seed is adapted for dispersion, either through the air or on water. The wind, in its autumn ministry, readily propels it, by means of a spherical body, resembling a small bullet, and having a long tail affixed, from the

extremity of which descends obliquely an appendage of considerable length. When, therefore, a strong breeze detaches the seed from its parent tree, it is readily upborne, and proceeds through the air, spinning round and round, till falling either on the earth or into water: in the one it becomes stationary, and is drawn into the earth by the agency of rain or earth-worms; in the other, it still moves onward, in quest of a resting-place, the appendage sinking about an inch in the water, and serving as a ballast to the tail and bullet-shaped body, which answer the purpose of a mast and rudder.

One of the finest specimens of black poplar may be seen at Bury St. Edmund's, rivalling even those of Italy, and, according to the testimony of Strutt, attaining to an elevation of ninety feet, being in girth fifteen feet, and containing five hundred and fifty-one feet of solid timber.

Aquatic trees are soon affected by atmospheric changes, and occasionally present bright hues. Such, especially, is the case with some kinds of our foreign kindred, which

become of a brilliant yellow ; but more generally they do not contribute to the beauty of autumnal hues. Moralists in all ages have spoken of the sere and autumn leaf, as emblematic of all changing forms of material existence. Leaves scattered by the wind, say they, offer in their desolation a salutary admonition to the children of mortality ; for thus do their pleasures and pursuits change with years ; youth and beauty, even fortune and intellect, resemble the dull poplar leaf, and waste and wither on the ground. Silent but impressive monitors are they, which warn of coming winter, even the winter of life, when the daughters of music shall be brought low, like warbling birds on trees, that pass away when their branches become leafless, or the pitcher is broken at the fountain because of the hard and frozen soil.

Such are the words which moralists have spoken, embodying sad thoughts, and associating them with fallen leaves. They forget, methinks, that our leaves have an important ministry to perform ;—that when fallen from their

high growing-places, they lie soft and thick upon the ground, not with a heavy pressure, to crush the feeblest insect, or to bruise the tenderest seed, but light and warm, and yielding a ready covering for everything that requires shelter; and that when high winds begin to dry the earth in spring, insects come forth from beneath those parental leaves, which have carefully treasured whatever has been consigned to their care; and that early flowers, peeping forth from their friendly covering, seem to welcome the return of genial weather, at which time winds are abroad, and the leaves, being no longer needed, become vegetable mould.

Our venerable brother, the white poplar, or abele-tree, produces a beautiful effect in woodland scenery, especially when growing high on rocky banks, among trees of deep foliage. The leaves are smooth and of a dark green on the upper surface, with a white dense cotton underneath; the bark is of a greenish grey, blended with darker shades; and hence the *tout ensemble* of the abele-tree—which

derives a name from the Low Dutch word *abeel*, descriptive of its hoary or aged colour—is extremely picturesque.

Evelyn relates that the wood of the white poplar is sought for by the sculptor; and history informs us, that in old times swords and bucklers were made of the same material. Evelyn also mentions “that in three years abeles attain incredible altitude, that in twelve they become as big as a man’s body, and that in eighteen or twenty they arrive at full perfection; for which celerity,” he adds, “we may recommend them to such late builders as seat their houses in naked and unsheltered places, and that would put a guise of antiquity upon any new enclosure, since by these, whilst a man is on a voyage of no continuance, his house and lands may be so covered as to be hardly known at his return.”

One of the finest specimens may be seen beside a lane which bounds the pleasure-grounds of Brockhall, in Northamptonshire. That tree has stood there for many

years, beautifully contrasted by his silvery quivering leaves, with such trees as group around.

This, our brother, grows best in woods and hedges, and near brooks ; he thrives, also, on the coast, and is remarkable for withstanding the north-east winds, so detrimental to vegetation on the coasts of Northumberland and Durham. Assigned to a watery location, with obvious reference to its disadvantages, the bark is used for curing intermittent fevers, which are most prevalent in wet countries ; and hence this tree, as already noticed, abounds in moist woods and marshy places. The bark will tan leather ; and the wood, being soft, and white, and stringy, and little subject either to swell or shrink, is admirably adapted for wainscoting and turning.

A variety pertains to the abele, with smaller leaves, and grey underneath.

Moist woods and boggy grounds, where grow the rush and the forget-me-not, are the favourite haunts of our third brother, the aspen, or trembling poplar, although equally

affecting the most dissimilar soils and situations. But wherever found, it must be confessed that he somewhat impoverishes the land ; his leaves, also, when fallen, destroy the grass, and his widely ramified roots spread so near the surface of the earth, that neither shrubs nor herbage can find support. The wood is light and smooth, soft, and durable, and the bark yields excellent torches. In countries where trembling aspens grow contiguous to beaver villages, they prefer the bark to any other kind of food.

Who that delights to visit the growing-places of different kinds of forest-trees, and to observe their distinctive peculiarities, has failed to remark the incessant agitation of aspen leaves?—

“ When rustling turn the many twinkling leaves
Of aspens tall.”

This peculiarity is said to result from the plane of the leaf-stalk being at the right angle to that of the leaves, which consequently allows of a much freer motion than

could have taken place had the leaves been parallel ; and hence the address of the poet :—

“ Why tremble so, broad aspen-tree ?
At rest thou never seem'st to be ;
For when the air is still and clear,
Or when the nipping gale, increasing,
Shakes from thy bough soft twilight's tear,
Thou tremblest still, broad aspen-tree,
And never tranquil seem'st to be.”

Legends of no ordinary interest linger around this tree. Ask the Italian peasant, who pastures his sheep beside a grove of arbele, why the leaves of those trees are always trembling in even the hottest weather, when not a breeze is stirring, and he will tell you that the wood of the trembling poplar formed the cross on which our Saviour suffered.

The tremulousness began, as legends tell,
When He, the Meek One, bowed his head to death,
E'en on an aspen cross ; when some near dell
Was visited by men, whose every breath

That sufferer gave them. Hastening to the wood—
The wood of aspens—they, with ruffian power,
Did hew the fair pale tree, which trembling stood,
As if awe-struck; and from that fearful hour
Aspens have quivered, as with conscious dread
Of that foul crime which bowed the meek Redeemer's head.

Far distant from those days. Oh, let not man,
Boastful of reason, check with scornful speech
Those legends pure; for who the heart may scan,
Or say what hallowed thoughts such legends teach
To those who may, perchance, their scant flocks keep,
On hill or plain; to whom the quivering tree
Hinteth a thought, which, holy, solemn, deep,
Sinks in the heart, bidding their spirits flee
All thoughts of vice, that dread and hateful thing,
Which troubleth of each joy the pure and gushing spring?

CHAPTER XV.

MAPLE.

Acer Pseudo-platanus.

“ Nor unnoted pass
The sycamore, capricious in attire,
Now green, now tawny, and ere autumn yet
Have changed the woods, in scarlet honours bright.”

My name *Acer*, sharp or hard, was given in old times with reference to my wood having been used for javelins. Those days have passed; and now I stand with others of my brethren, in open places or sandy grounds, and often by the sea, in company with sallow thorns. Martello towers are we in the vegetable world, thriving best beside the



W. F. del et lith.

SYCAMORE.

R. B. & R. imp.

roar of ocean, and defending all shrubs, and herbage, and lesser trees, from the winds and the salt spray.

My history is somewhat brief, yet it breathes of peace, associated with useful arts and details of husbandry. In spring my bloom is beautiful and fragrant ; bees come from all parts to revel in my sweets, and happy is the cottager who has a plantation of sycamores beside his bee-garden. If planted judiciously, we serve also to keep off the wind ; for our branches form a dense mass of foliage, and look well in the distance, presenting, oftentimes, strong contrasts of light and shade, when the sun throws a bright gleam across our growing-place, and some dark mass of rock is in deep shadow. My bark has not the furrowed roughness of the oak, but is extremely picturesque, smooth, yet peeling off in large flakes, and leaving patches of different hues, and seams and cracks, which the artist readily transfers to his canvas. In spring the delicate hue of my luxuriant foliage beautifully harmonizes with green meadows, my frequent habitat ; and beneath my shade both sheep and

oxen find abundance of herbage whereon to lie down ; for, unlike that of the ash and beech, my shadow has no injurious quality, and grass flourishes around my roots.

“Take care of that young tree,” said Farmer Robinson to his labourer, who was diligently employed in clearing away a rambling company of brambles, which had grown unmolested during the time of the last tenant ; “the soil is good, and in a very few years we shall have pasturage for our bees, and plenty of maple wine.”

The farmer spoke true : before his young labourer had attained middle age, the sapling had grown into a fine tree. Its branches spread wide and high, and bees came from all parts to gather their honey harvests among the flowers ; beneath its shade lambkins were wont in spring to sleep beside their dams, and when the time of shearing came, and the sheep were disburdened from their fleeces, you might see them hastening to the sycamore-tree for shelter.

A kind of rustic festival was held about the same time, in honour of the maple wine. Hither came the farmer

and his dame, with their children and young neighbours, each carrying bunches of flowers. Older people came in their holiday dresses, some with baskets containing cakes, others tea and sugar, with which the farmer and his wife had plentifully supplied them, and joyfully did they rest awhile on the greensward, while young men gathered sticks, and a bright fire having been kindled, the kettle sent up its bubbling steam.

When this was ended, and few of the piled-up cakes remained; when, also, the young children had emptied their cans, and rinsed them at the old stone trough, into which rushed a full stream, tiny hands joyfully held up the small cans, and bright eyes looked anxiously to the stem of the tall tree, while the farmer warily cut an incision in the bark.

What joy, when a sweet watery juice began to trickle, and the farmer filled one small cup, then another, till all were satisfied, and a portion sent to the older people, who were contentedly looking on from the grassy slope where

they had seated themselves ! The hole sufficed to furnish sufficient juice to fill a considerable vessel, which the labourer, who first told his master of the young sycamore, was privileged to carry to the farmhouse, from which, in due time, a household wine was made by the farmer's wife, and offered to her guests when they again met at Christmas, beside the yule log.

The dame knew nought concerning the process for obtaining sugar, or else she might have sweetened her children's puddings from the watery liquor yielded by the sycamore, or greater maple : an art well known to the aboriginal tribes of North America.

There is much in my natural history to excite attention, both as regards the insect tribes that resort to my bark and leaves, and the wonderful construction of my seeds. The *Scarabæus Melontha* is one of my frequent visitors ; and if my pollen, which frequently covers, as with light yellow powder, the hairy coat of the industrious bee, and which appears globular in the microscope, is slightly

moistened, it bursts open with four valves, which assume the form of a cross. In the seed, if soaked in warm water, and then carefully examined, you may discover the roots and long radicle-leaves of the future plant, folded up with the utmost care; as also minute leaves, destined to succeed them: these small leaves are beautifully green, a fact not readily explained, as light is excluded by three coatings and a woolly wrapper. Thus wondrously is the wisdom and beneficence of the Creator manifested in the provision appointed for the preservation of even a small seed.

Though growing freely in my adopted country, time was when the sycamore had neither a name nor place among indigenous forest-trees. Naturalists relate that my ancestor was originally exotic, the native of a sunny clime, and introduced into Britain for ornament and shade. Turner and Evelyn hold this opinion, and Parkinson, the herbalist, relates, that in his time my tribe "was no where found wilde, or naturall in our lande, as he could learne,

but only planted in orchards or walkes for the shadowe sake." Chaucer speaks of us as "rare exotics" in the fourteenth century, and Gerard, as strangers in England, growing "only in the walkes and places of pleasure of noblemen, making a beautiful appearance in bloome, and affording much pabulum for bees, smelling, also, strongly of honey."

Doubtless we are noble trees. Our spring tints are rich, glowing, and harmonious. In summer our deep green accords well with our grand and massive foliage; and the brown and somewhat dingy red of our autumnal foliage contrasts with the deeper and glowing tints of the poplar and the beech, the oak and the elm, and not unfrequently heightens their effect.

We grow well in Scotland, and receive wherever growing a just meed of approbation. You may find us uniformly beside old aristocratic residences, having been much planted in former times, when the long peace that subsisted between France and Scotland occasioned our introduction from the

continent. Associated, therefore, with the memory of Scotland's ill-fated queen, many an aged sycamore still lifts his venerable head beside old walls, now roofless and deserted, yet great in their day of power, and bringing to mind the lament of the poet Burns.

COMMON MAPLE.

Acer campestre.

I am a wayside tree,
Of little worth, some think, who rashly judge,
And yet my place nor towering oak might fill,
Nor stately pine.

Hear me also, said the common maple, when his elder brother had finished speaking; I have somewhat to relate concerning myself, with which some of my hearers may probably not be well acquainted. My wood, still used for many light articles, was formerly in great request for

all kinds of cabinet-work, until superseded by mahogany. The knobs or excrescences of ancient trees, produced either by time or accident, afforded beautiful and richly variegated specimens, which often represented, in their natural contortions, either birds or animals, and, when darkly veined or spotted, were greatly valued by the Romans, and purchased at enormous prices, chiefly for making tables. Hence the proverbial saying, "to turn the tables" upon another, has been conjectured to owe its origin to this extravagant taste, which afforded the Roman ladies an opportunity of retaliation, when their husbands remonstrated against the costliness of their jewels and attire. Of such knobs and excrescences, which Pliny eulogized and Ovid sang, were composed the celebrated Tigrine and Pantherine tables; and some in the possession of Cicero, Asinius Gallus, King Juba, and the Mauritanian Ptolemy, are said to have been worth their weight in gold. Maple-wood was also deemed suitable for purposes of state :—

“ A maple throne, raised higher than the ground,
Received the Trojan chief.”

Though considerably smaller than my brother, who is called by distinction the greater maple, chief of our house, and growing on sub-alpine regions in Cumberland and Westmoreland, and high mountainous sheep pastures, while my lowly birth-place is in thickets and hedges, I have yet some important purposes to fulfil. I make excellent gun-stocks, and screws for cider-presses; turners greatly estimate my wood, and vessels are produced, by their craft, so thin as to transmit light. Nor is it to my reproach that I am somewhat of a dwarf, for rarely does the farmer admit of my rising higher than brushwood; yet when allowed to grow freely, as at Knowle, in Kent, one of my brethren measured twelve or fourteen feet in height. But why, you may perhaps wish to know, are we thus restricted from attaining our natural altitude? Because we form rapidly a close hedge, and afford plenty of firewood to the farmer.

Yet still somewhat of sylvan beauty is associated with the unassuming maple. In autumn our foliage presents a peculiarly rich and mellow tint; in spring our leaves are the resort of many defenceless insects, some of which erect upon them their numerous red-coloured and tent-like domiciles, and in summer they present a white cottony appearance. True it is that our young shoots are singularly rugged; and yet, if cut through horizontally, a thin slice will present a beautiful and curious object for the microscope, exhibiting the different channels and variously constructed tubes, through which sap flows and air circulates for the supply of our various requirements. And thus has a naturalist, when speaking of our family, well observed:—"It is good and delightful to contemplate the wondrous mechanism which has been appointed by its Creator for the well-being and the beautifying of this humble hedge-row tree, this dwarf among its statelier brethren, whom the artist never lingers to pourtray, nor yet the poet to describe." But over the tomb of one who

loved our depressed family, bends the maple in Boldre churchyard, grateful, it would seem, for the many good words spoken concerning us by the exemplary Gilpin, and watching the place of his long rest.

CHAPTER XVI.

HORSE-CHESTNUT.

Æsculus Hippocastanum.

A pyramid of verdure,
Rising high, with much of sylvan beauty,—grandeur, too,
And power to raise the thoughts from earth to heaven.

MAY I not take my place among the aristocracy of forest-trees indigenous to Britain? said a magnificent horse-chestnut. The tone in which he spoke was calm and moderate, yet betokening somewhat of offended dignity; and thus he made good his claim :—

True it is that none of my ancestors were hewn and

lopped in the days of William the Norman, because they had not then settled on the shores of Britain; but Gerard told concerning us in his time; Tradescant, also, when Queen Elizabeth installed him as her gardener. Evelyn spoke of our ancestors with unqualified admiration, when he thus wrote in his 'History of Forest-trees':—"I wish we did more readily propagate the horse-chestnut, which, being easily increased from layers, grows into a goodly standard, and bears most glorious flowers, even in our cold country. This tree is now all the mode for avenues in the country palaces of France, as appears by the late superintendent's planting at Vaux."

Surely there ought to be no appeal from such authority as Evelyn's; and yet we have been described as heavy-looking and ungraceful, formal too, and hardly to be tolerated, unless when required to form a background for trees of more pleasing character.

Observe my place of growth—a wild secluded knoll, rising somewhat precipitously on the verge of a deep

valley, thickly timbered, with breaks of lawn and thicket. A space extends on either side, covered with short herbage, and right and left are forest-trees, the oak, the ash, and elm, with here and there beautiful specimens of birch; but whoever passes, looks solely at my pyramid of foliage. Many who come this way, when the sun is setting over yonder hill, linger with delight to observe the broad masses of light and shade that are thrown over half the landscape, by the noble mass of foliage, which, although with nought of airiness and lightness, preserves its own calm dignity, and is peculiar to our race. Methinks few objects within the limited range of British forest-trees are more beautiful to behold; and who among our sylvan brethren may compete with us in the pyramidal form of our foliage and our flowers? The chestnut, when growing unharmed, and permitted to rise into the dignity of his natural growth, forms a perfect pyramid; the flowers, too, present mimic pyramids of delicately white, pink-tinted blossoms, among which the goldfinch and the linnet, the blackcap

and the laverock, sing blithely, and bees come humming to gather their honey harvests. Find, if you can, among streams and glens, or rocky headlands — for such are our favourite haunts—any tree more worthy of regard than a magnificent chestnut, the growth of ages, clothed in all the richness of his deep green foliage, and spangled with innumerable flowers, from the lowest to the highest branch? Who among the lovers of forest scenery can look unmoved upon such a goodly tree, planted by the hand of his Creator, and eminently adapted to fill the mind with gratitude and admiration?

CHAPTER XVII.

WILLOW.

Salix.

“Willows to panting shepherds shade dispense,
To bees their honey, and to corn defence.”—*Virgil.*

METHINKS I am suggestive of calm thoughts, said a willow, drooping in its beauty beside the margin of an inland lake. My light green pendent branches are in unison with secluded spots and the sweet warbling note of the small wren that bears my name. The botanist who has made his way through reeds, oftentimes ankle-deep in a damp soil, while seeking water-plants, listens with delight to the



W.F. & Co. lith.

R.B. & R. imp.

WILLOW.

somewhat low, yet sweetly varied song of this small bird, when he rises singing from among my branches, near which his mate sits patiently on her nest within some hollow, which time or else the burrowing rabbit has formed in a neighbouring bank.

“ Upon a tuft of willow trees,
That twinkled to the gusty breeze,
Behold him perched in ecstasies,
Yet seeming still to hover ;

“ There, where the flutter of his wings
Upon his back and body flings
Shadows and sunny glimmerings,
That cover them all over.

“ While thus before my eyes he gleams,
A brother of the leaves he seems,
When in a moment forth he teems
His little song in gushes ;

“ As if it pleased him to disdain
The voiceless form he chose to feign,
While he was dancing with the train
Of leaves among the bushes.”

Another of my companions, the least willow-wren, warbles in like manner his little simple song, where all else is still, except the rushing sound of waters flowing swiftly; and his brother, the common willow-wren, may be seen running up and down my stem and branches in search of insects. Of these, at least fifty-three different species find their homes among my bark; and hence ladybirds abound in vast numbers among willow-beds, where they confer incalculable benefits by destroying innumerable aphides. Each insect has her own brief history, and wonderful are the natural phenomena concerning which an entomologist could speak. But passing over such, I shall only notice that the *Phalæna pulla*, a nocturnal moth, accompanies the evening star; emerging from out her dwelling among my roots, when that star arises, and feeding among the leaves till morning; and that when day begins to break she retires to her subterraneous abode, in order to avoid her inveterate enemy the ichneumon; lastly, that the *Ptinus tessellatus*, or death-watch, much affects my branches, and that the *Phalæna cossus*

undermines, with her companions, even the finest growing trees, till they become utterly powerless to resist the gales of winter.

And yet, though suggestive of calm thoughts, much of historic interest is associated with my name. Who, in remembering the sanguinary purposes to which my pliant branches were applied in Druidic times, does not feel thankful that his lot is cast in far different days? The willow grew then, as now, beside clear streams, in glens such as poetic fancy might delight to feign; but instead of being regarded as an object of especial interest to the botanist and entomologist, savage men went forth to collect the boughs and twigs, which having brought within the precincts of gloomy and unhallowed woods, they constructed with them huge images, for the immolation of prisoners either taken in war, or about to be sacrificed.

My tribe was, doubtless, more important to the ancient Britons than any of their sylvan brethren. Those half-civilized barbarians were so skilful in the art of weaving

baskets and vessels for domestic purposes, that they excited the admiration of even the polished Romans. Their shields also, which often presented an impregnable barrier to the attacks of their enemies, were woven with similar materials, and covered with hides ; and of nearly the same construction were the boats of your remote ancestors, as described by Cæsar, Pliny, and Lucan. Solinus likewise makes mention of wattled boats as common to the Scotch and Irish ; in such the heroes of Ossian rowed across their blue lakes.

In later times, and when the descendants of the ancient Britons had taken a high standing among nations, one of my kindred became associated with the name of Sophia, Queen of Prussia. If a passing traveller, recalling to mind a scene of domestic happiness in the life of that distinguished woman, should pass through the shaded avenue of trees at Neugarten, and sit down beneath the old willow on the margin of the lake, where its long spreading boughs bend towards the earth, and a glorious view extends over Weisen and the Peacock Island, let him remain quietly

and think that a king and queen meditated beneath the old boughs which encircled and concealed them, and that, while religion was to them the first and purest source of happiness, it became their consolation amid the disasters by which they were overwhelmed.

Beneath the shade of that old willow the Queen of Prussia had spent many happy hours in the commencement of her married life ; in after years she loved to read there her favourite authors, and to watch the sports of her children ; and on the same spot she spent nearly her last day of happiness, before the bursting of that fearful storm which shook the throne of Prussia to its centre. The queen, as writes her biographer,* did not wish on that day to leave Paretz till the latest moment, and she requested the king to order the carriage round to another entrance, that she might walk through the long avenue of trees ; the king readily acceded, and they walked for a long time, arm in arm, in the calm moonlight.

* Mrs. Charles Richardson.

When the overwhelming miseries inflicted by Napoleon had broken the heart of Prussia's queen,—the mother of her country, as she was universally termed,—the King caused the way which she took for the last time to be turfed, and bordered with flowers. The gate through which she passed was never again opened, but an inscription, bearing the date of the twentieth of May, 1810, with the initial of Louisa, was placed over it, and in the grotto, shaded by the willow of which I have spoken, was inscribed in gold letters, on the iron table, "Remember the absent," that her children might ever be reminded of their mother.

And as Prussia's queen loved the willow among kindred trees, because of its sylvan beauty and associations with domestic happiness, so was this tree selected as a symbol of sorrow for her untimely death; and nowhere, perhaps, is the association of the willow with funereal architecture more affecting than at the mausoleum of Charlottenburg.

The mausoleum is approached by a long avenue of pine-trees, leading to a grove of black firs, blended with cypress

and Babylonian willows, and bordered with white roses, lilies, and hortensias; the favourite flowers of that beloved queen, beauteous yet melancholy contrasts to the hallowed temple of Brandenburg granite, beneath which repose the mortal remains, in a sarcophagus of lead, weighing eighteen hundredweight, and supported by eight lions, upon which is graven this simple inscription:—

“Louisa Augusta Wilhelmina Amelia, Queen of Prussia, Princess of Mecklenburg Strelitz, born 10th of March, 1776, died at Hohenzieritz, 19th of July, 1810.”

Poets in all ages have spoken of the willow: some with reference to mournful, others to festive occasions; some even with regard to religious observances. Thus the poet Googe:—

“And willow branches hallow, that they palmes do use to call.”

But more generally we are connected with melancholy associations, though men hardly know why. True it is that formal rows of pollard willows are often seen

standing disconsolately in low, flat, or inundated meadows, or else by the side of ditches, over which they have no branches left to bend; but with such the poet never concerns himself. He thinks only of the weeping willow when drooping in natural luxuriance above some clear or sparkling stream; the wavy tips just rippling the surface of the gliding waters, which reflect their image for a moment, and then pass on. Thus beautiful in its assigned locality,—cheerful, too, on account of its light and silvery foliage and pendent branches, breathing rather of placid cheerfulness than enduring grief, the willow has yet been selected in all ages as an emblem of disappointed love.

“In love, the sad forsaken wight
The willow garland weaveth.”

Every one who has read Shakespeare remembers that portion of an old ballad, which is sung by Desdemona on the eve of her death, with its plaintive termination of “O willow, willow”: —

“ My mother had a maid called Barbara ;
She was in love ; and he she loved proved mad,
And did forsake her : she had a song of ‘ willow,’
An old thing ’twas, but it expressed her fortune,
And she died singing it : That song, to-night,
Will not go from my mind ; I have much to do,
But to go hang my head all at one side,
And sing it, like poor Barbara.”

No mention is made concerning poor Barbara’s pale fact, nor yet her lack-lustre eye, nor melancholy voice ; we know only that the old song expressed her fortune, that she hung her head, and went about her household work singing it ; yet who can read this pathetic passage without the vision of poor Barbara ?

The plaintive ballad which Barbara sang was old in the time of Shakspeare, and thus the descant ran :—

“ A poor soul sat singing by a sycamore-tree,
O willow ! willow ! willow !
With his hand on his bosom, his head on his knee,
O willow ! willow ! willow !
Sing O, the green willow must be my garland.

“ He sighed in his singing, and after each groan
Came willow ;
I am dead to all pleasure, my true love is gone ;
Sing O, the green willow.

“ The mute birds sat by him, made tame by his moans ;
O willow ;
The salt tears fell from him, which softened the stones.
Sing O, the green willow.

“ Come, all you forsaken, and sit down by me,
O willow ;
He that complains of his false love, mine’s falser than she,
Sing O, the green willow.”

A small black-letter collection of ancient poetry, entitled the ‘Golden Garland of Princely Delights,’ contains an old pastoral dialogue, which has also reference to the willow.

“ *Willy.*—How now, shepherd, what means that ?
Why that willow in thy hat ?
Why thy scarffes of red and yellowe
Turned to branches of green willowe ?

“ *Cuddy.*—They are changed, and so am I,
Sorrowes live, but pleasures die ;
Phillis hath forsaken mee ;
Which makes me wear the willowe-tree.”

In old times those who sat down by the waters of Babylon, and who wept when they remembered Zion, hanged their harps upon the willows in the midst thereof. And still beside the majestic stream of the Euphrates, wandering in its solitary course, like an exiled monarch amid the silent ruins of his desolated kingdom, grow grey osier willows, on banks hoary with reeds, or amid ruined embankments, divided and subdivided again and again, over the apparently interminable expanse of wide-spreading morasses, ancient foundations, and chains of undulating heaps.

To the eye, therefore, of the historian, three historic epochs are inscribed on the bark of the willow. The first has respect to the carrying away of the captive Jews to Babylon, when their daughters refused to sing the songs of their fatherland to those who had made their cities waste and brought their sanctuaries into desolation; the second is associated with the ancient Britons, when woad-dyed chieftains presided over your barbaric ancestors, and Druidic superstitions held sway in the minds of men; and lastly,

it brings to mind the sad history of Prussia, when her throne was about to be overturned by a lawless usurper.

Somewhat of sadness, therefore, is associated with the willow in the mind of the historian. It is otherwise with the Persian and Arabian, who love the willow, and cultivate it with great care; the one, because its fragrant catkins yield their celebrated febrifuge water, or *caleef* of their poets; the other, because a costly perfume is obtained from the flowers.

The English farmer, also, sees in most of our brethren trees of considerable value, such as are available for the occupation of marshy ground, otherwise useless; and hence, as already noticed, his low grounds broken by formal rows of pollard willows; the carpenter, in like manner, selects our wood for making clogs, and ladders, truncheons, pill-boxes, cricket-bats, and hop-poles, for knife-boards, which give an edge like stone; and the charcoal-makers obtain from us the finest charcoal.

Such are our chief characteristics in a collective capacity;

but certain peculiarities which pertain to different members are deserving of brief notice.

The bitter purple willow, for example, delights in marshes and river-sides, where it rises to the height of three or four feet. Remove this plant to upland pastures, where grow the juniper and dwarf birch, and its distinctive character would utterly disappear; the rich purple of its branches, and the somewhat deeper hue of its leaves, would cease to excite attention. But when growing in favourable localities, the effect is beautiful, and the basket-maker readily discovers his favourite shrubs; for none among the willow tribe are more valuable for fine basket-work, or for plaiting into low close fences, to keep out hares and rabbits. The leaves and bark are so intensely bitter that no animal will touch them, and the twigs are so long and tough, yet flexible, that they may be interwoven into almost every shape.

The rose-willow, of which osier-beds are mostly constructed, is used also for all sorts of twig-work. The black-bird cage, which is seen with its jet black warbling occu-

pant, beside the cottage door, is made of its slender shoots ; the cradle, too, in which a sleeping infant is rocked, often within the same cottage, and the large family basket, which older children bear forth with pride into the adjacent orchard during the time of apple-gathering, are each constructed from the shoots of the rose-willow.

This species, on account of its long and pliant branches, was probably used for making bee-hives in the days of Virgil.

“Whether thou build the palace of thy bees
With twisted osiers, or with bark of trees,
Make but a narrow mouth ; for as the cold
Congeals into a lump the solid gold,
So 'tis again dissolved with summer heat,
And the sweet labours both extremes defeat ;
And therefore, not in vain the industrious hind
With dauby wax and flowers the chinks hath lined,
And with their stores of gathered glue, contrive
To stop the vents and crannies of their hive.”

Nor less available are the pliant branches of the fine-basket osier, with those of the red willow, for different

kinds of basket-work, whether useful or ornamental ; while those of the broad-leaved monadelphous willow, of which the true locality is the banks of subalpine rivers in the north of England, is utterly valueless as an osier.

Narrow-leaved osiers, somewhat unrestricted in their growing-places, and frequenting alike both woods and hedges, with the banks of rivers and osier-grounds, come more generally under the appellation of tree osiers ; and among such, the smooth willow is one of the most valuable. This graceful species, when not molested, often rises to the height of thirty feet, and casts its bark, which cracks angularly, like that of the plane-tree, in autumn. It is principally cultivated for white basket-work, and produces rods of eight or nine feet long, which are tough and pliant, and very durable. Men are appointed to cut them down every year ; and when the willow-beds are surrounded on all sides with water, and those who are thus about to be employed go in boats, with their wives and children, the scene is both novel and animating.

The Bedford willow, which is found throughout the midland and southern counties, in marshes and willow-beds, and is nowhere more abundant than in Northumberland, derives its name from the late and present Dukes of Bedford, who first ascertained and brought into notice the valuable properties of the bark for tanning. This interesting species, which grows equally in the vicinity of London and in the wildest solitudes in the north of England, is associated with the mention of a time-worn castle in the vale of Tyne.

“That castle rises on the steep
Of the green vale of Tyne,
While far below, as low they creep,
From pool to eddy, dark and deep,
Where alders bend and willows weep,
You hear her stream repine.”

Few trees are equally distinguished for rapid growth, and extraordinary bulk in proportion to their size. In less than thirty years, the trunks afford considerable quantities of useful board, for hop-poles and hurdle-bars, and are

consequently in great request in counties where large flocks of sheep are depastured upon turnip-fields. The finest specimen of this kind of willow occurs in the celebrated tree near Lichfield, known by the name of the Johnson willow, because that great moralist delighted to rest under its shade. The trunk, at six feet above ground, measures thirty-one feet in girth, and rises twenty feet in height before dividing into enormous ramifications. The whole trunk, which comprises 130 feet of solid timber, continues perfectly sound, and the widely spreading branches are extremely vigorous. The effect produced by this giant willow, when seen from an opposite point, across the meadows, is extremely beautiful.

Another specimen of equal grandeur belongs to the ancient monastery of St. Edmund, at Bury, standing in its loneliness and beauty, and bearing the name of the Abbot's tree. It is conjectured to have been contemporary with that far-famed and splendid monastery, when in the zenith of its power.

Different species of the *Salix* tribe pass in review, each with a distinctive character ; but, however interesting, I shall briefly mention only such among our brethren as are most conspicuous. First, then, is the sweet bay-leaved willow, which affects moist woods and hedges, especially in the north of England. The branches are cut to make shingles, and the leaves, when dried, afford a yellow dye ; the long sprouts, also, are much used in Yorkshire for large baskets ; and the down of the species is employed as a substitute for cotton in stuffing mattresses and cushions, and, when mixed with a third part of cotton, makes good candlewicks. Next is the yellow, or golden osier, abundant in rough low pastures and stream-sides. Of this, the wood is white and tough, and the shoots are much used by crate and basket-makers. Few trees are more ornamental ; its golden-tinted branches look well when growing beside water, with a dark background of pines, even in the midst of winter ; and hence the yellow osier is planted by fancy gardeners in pleasure-grounds, where it enlivens

their cheerless aspect. Useful, also, is this favourite shrub ; for, like the water sallow, of which the bark is manufactured into coarse paper and pasteboard, it also may be converted to the use of the paper-maker. At Turin, especially, the fabrication of paper, both for writing, printing, and wrapping, made from the thin bark of willow and poplar trees, has been fully approved and sanctioned by the Academy of Sciences.

Growing oftentimes amid the wildest solitudes, by Swedish waterfalls and rocks, where not a sound, excepting that of headlong torrents, interrupts their awful stillness, the crack-willow, equally indigenous in Britain, is much sought for by the natives. Young men go forth, armed with hatchets and strong iron-spiked poles, whereby to assist them in climbing rocks or passing over a slippery surface ; and loud is the huzza which announces that the most adventurous have gained the high growing-place of this wild shrub. Others follow in succession ; and when the whole are assembled, they begin with much ceremony to cut down

the crack-willow, in order to obtain the roots, which are used for staining the Easter eggs of a purple colour: an ancient custom, which likewise prevails in Scotland. Well might the lonely traveller turn with instinctive dread when meeting a company of wild-looking men, armed with hatchets, and having red hands, as if returning from some mortal fray. But he need not fear. That terrifying colour is caused by having bruised the *Aphis Salicis*, which particularly infests this kind of willow, and is filled with a deep red fluid, resembling blood; hence persons employed either in felling the crack-willow, or stripping the branches, have their hands of the same ensanguined hue.

Those sterile growing-places, which in Sweden the crack-willow especially affects, are also cheered by the round-eared sallow, which in this country prefers woods and hedges, and dry mountainous heaths. Young people look for them in the thawing months, hopeful to see that the flower-buds have begun to open. This tree is one of nature's surest monitors, a beacon shrub, concerning which

a Calendar of Flora, made in Sweden during the year 1755, thus notes :—

March XIX.—Flowers of the round-leaved or eared sallow open on the 19th of March, the thawing-month, which commences from the first melting of the snow to the floating of ice down the rivers.

Eaves of houses drop towards the noontide sun.

XX.—Snow melts against walls.

Larks begin to sing.

XXII.—Water flows by the walls.

XXV.—Roads very dirty and full of water.

The same naturalist has inserted in his calendar, that when the willow, concerning which we speak, begins to leaf, migratory birds return in Sweden to their accustomed haunts.

April IV.—Upright fir-moss sheds its dust.

Stones are loosened from the ice.

VI.—Hills begin to appear, the snow being melted.

Serpents come out of their holes.

Water-spiders frisk about ; the fly creeps forth.

Black game and lapwing reappear.

VII.—Nettle butterflies are numerous.

Tame ducks begin to sit.

Wild ducks in abundance.

Swans and daker-hens.

Rivers are unbound and ice floats down.

And so unvarying are the natural phenomena of the month, that the rivers of Upsal were never frozen beyond the 19th of April, according to the observations of O. Celsiusen, during the course of seventy years.

Linnaeus, who traversed the wildest parts of Lapland in quest of plants, found the round-eared sallow on the verge of perpetual snow, the favourite resort of ptarmigans. These birds are believed to feed upon the leaves, and hence, according to the testimony of Wahlenberg, the plant is called the ptarmigan leaf.

COMMON OSIER.

Proper osiers are distinguished from sallows, equally by their long, straight, flexible, and mostly tough twigs, and generally sessile germens, with elongated styles and stigmas.

Among these, the common osier is the largest of our tribe in England: its branches make excellent hoops and baskets of the larger sort, as in the days of Virgil.

“ But when cold weather and continued rain,
The lab’ring husband in his house restrain,
Let him forecast his work with timely care,
Which else is huddled when the skies are fair ;
Or sharpen stakes, or head the forks, or twine
The fallow twigs to tie the straggling vine ;
Or wicker baskets weave.”

The common osier is often seen in willow-beds, and is planted not unfrequently along the banks of rivers, to preserve them from being washed away by the force of the current ; the same tree forms hedges of rapid growth, which serve as screens to protect plantations from the wind. Among aquatic trees, the osier stands foremost as a coppice wood, whether it is cut annually for basket-makers, or suffered to stand for some years, in order that the stems and branches may be available for

hurdles and rake-handles, or stakes and poles of great length.

Who, in passing, does not admire the willow-beds that diversify the Thames near London? One such, at Richmond, was devoted for charitable purposes many years since: flannel is purchased from its proceeds, and poor and aged persons are thus made comfortable during the winter months. Nor is the gift a slight one; for when the osier has attained its full growth, it increases in quantity and value, till the profits are almost incredible. The author of a 'Treatise on Planting and Ornamental Gardening' even states that in favourable situations, and in counties where the twigs are in demand, osier-grounds have been known to pay an annual rent of ten pounds per acre.

The wood of the common white willow is preferred for making milk-pails and butter-firkins, on account of its whiteness, and for the same reason the chips are used for willow-bonnets; it is also in request for flooring, and for chests and boxes, being equally tough and pliable. The

bark is valuable for tanning leather, and a decoction will dye yarn of a cinnamon-colour; it possesses, also, great efficacy in curing intermittent fevers, according to the testimony of the Rev. Mr. Stone, in the 'Philosophical Transactions' (liii. p. 195). Hence the tree grows naturally in places where intermittents are most prevalent; a merciful provision, which causes the antidote to flourish beside the marsh that renders its proximity needful.

Bees delight in the flowers. You may hear their welcome hum as they come and go among the willow branches; and, perhaps, when the lover of nature first goes abroad into the fields in spring, no object is more pleasing than a wayside willow, covered with yellow catkins and humming bees.

“Behold, that bordering fence of sallow-trees
Is fraught with flowers—the flowers are fraught with bees;
The busy bees, with a soft murmuring strain,
Invite to gentle sleep the lab’ring swain:
While from the neighb’ring rock, with rural songs,
The pruner’s voice the pleasing dream prolongs.”

White willows are found growing in the fifth zone of plants into which Linnæus divided the Lapland Alps, though rarely more than two feet high ; and with them is their relative the green whortle-leaved willow, of still more humble growth. At this point, the hills are rather brown than green, being covered with creeping azaleas ; and a few solitary flowers occupy such sheltered spaces, among the rocks, as lie open to the sun and are screened from the utmost extremity of cold ; but the only berries which ripen at this degree of elevation are those of the black-berried heath. The utmost boundary of this inhospitable region is eight hundred feet below the verge of perpetual snow ; beyond it the migratory Laplanders rarely fix their dwellings, even during the summer months, as the reindeer lichen ceases to vegetate.

CHAPTER XVIII.

A SMALL GROUP OF TREES.

We are small, and we grow low,
Where the rippling streamlets flow ;
Or on crags with moss o'ergrown,
Or on moors 'mid heath and stone,
Or where quivering boughs wave lightly,
And the wood-lark singeth blithely.
Yet not sweeter singeth she,
Than our blended voice of glee.
And ofttimes the wind his ride
Stoppeth where we love to bide ;
Gathering fragrance from each flower,
In this blithe and gladsome hour.

METHOUGHT I heard sweet voices in a glen, very musical,
yet quiet, and such as the listening ear might readily forego,

should a bustling breeze sport with some leafy branch in passing, or a prattling stream rush tumultuously over its pebbly bed. At one moment it seemed as if fairies were singing quietly among themselves, with a kind of dreamy melody, that brought to mind many a strange legend beloved in childhood ; at another, it was like a very distant echo of church-bells, such as I once heard responding from a wood, in the stillness of a summer evening. Presently, however, the song ceased ; and one sweet voice, then another, sang by turns, each one embodying her own history, in accents not louder than the low sweet plaint of the smallest willow-wren, but clear and audible ; and thus the friendly contention ran :—

When I look upon my distinguished sisters, and yonder noble brotherhood of elms, the theme of poets and historians, I might surely feel somewhat discouraged, said a wild cornel-tree. And yet I feel, strong within me, a consciousness of utility, and that, rightly filling up my

appointed place, I am subserving the purpose of my Creator. True it is that my berries are extremely bitter, but they yield lamp-oil and a purple dye; and my firm hard wood, which gave to me a name derived from *cornu*, horn, is in great request for many important purposes. My unpretending branches yield leaves that are acceptable to sheep and goats; and in spring, lambs, when tired with their gambols, lie down in peace beneath my shade. But who may pass the cornel-tree unnoticed, at that dull season, when a poet, looking over the fading landscape, asks complainingly—

“ Where is the pride of summer—the green prime,
The many, many leaves all twinkling? Three,
On the mossed elm,—three on the naked lime,
Trembling,—and one upon the old oak-tree !”

Then it is that the cornel stands forth in all her pride;—her foliage deep red, her boughs of the same rich hue, her leaves rustling in the fresh breeze of autumn, and brilliantly contrasted with many a denuded brother, throwing

wide his leafless branches, and unable to offer the least shelter to even a small wayfaring bird or shivering field-mouse.

Hence it happens that I am frequently removed from my solitary growing-place to parks and shrubberies, and admired by great ones as they pass. My dwarf brother occasionally grows beside me, but more generally on Alpine pastures among rocks and waterfalls, where his red berries are eagerly sought after by the weary Highlander.

Behold, said the gatteridge, or spindle-tree, in my four-celled capsules and purple seeds a beautiful example of that inherent power which causes the outer covering to expand at an appointed time. My petals are greenish-white; they have nothing of outward beauty to commend them; and yet none among the brightest or the loveliest of spring flowers are more simply obedient to the laws of nature. I open to April's showers, and her wandering sunbeams, when first the primrose and the harebell, the violet and herb-Robert, welcome back the cuckoo and



W. F. del et lith.

R. B. & R. imp.

H A Z E L .

her attendant the wry-neck. The linnet, in passing, often lingers to pour forth his little song among my branches, and the early butterfly opens her gaily-tinted wings upon my petals.

My wood, if cut at the time of flowering, is tough and not easily broken. The watchmaker uses it for cleaning watches, and musical instrument makers for organ-keys. Many a pealing organ, therefore, owes much to my unobtrusive ministry, and the humble spindle-tree aids in perfecting that solemn part of divine service, when warbling voices and strains of music unite in ascribing praise to her Creator.

Surely I may boast a little of my pedigree, said the hazel-nut. Child am I, collaterally, of a sunny clime : my relatives colonized the neighbourhood of Avellano in Italy, to which they were originally introduced from Pontus, whose name they bore, till changed to *Nux Avellana*, and afterwards to *Corylus Avellana*.

Who does not look with pleasure on the beauteous

appearance of my vivid crimson styles in March? My sister has spoken of her oneness with birds and butterflies, and such flowers as come up in April; but I herald the coltsfoot and vernal speedwell, and call forth the slumbering bee from out her hive.

My frequent growing-place is a hedge or coppice-wood, because my wood is in great request for charcoal. It is used also for fishing-rods and walking-sticks, for crates and barrel-hoops, and my shoots are preferred for springles to fasten thatch on cottage-roofs or ricks. In Kent and Surrey, and many southern parts of England, where sheep-walks extend for miles, my tribe supply the farmer with folding hurdles, and my roots are preferred for inlaying and staining. My chips, even, are used in Italy for clearing turbid wine; and in countries where yeast is scarce, my twigs, slightly twisted together, and steeped in ale during its fermentation, and then hung up to dry, become a substitute for yeast. Painters and engravers well know my value: they prepare from me coals for delineating their

designs ; and this is their method of proceeding :—they take pieces of hazel, about the thickness of a man's arm, and four or five inches long, which, having cleaved into a proper shape and well dried, they place in a large pot filled with sand, and cover the top with clay ;—this done, the whole is put into a potter's oven, or any other sufficient degree of heat ; and when cooled again, the sticks are found converted into charcoal, which sketches freely, and easily rubs out.

Who among you, my sisters, can vie with me in diffusing gladness, when brown October is on his way, and when

“ Old Autumn, in the misty morn,
Stands shadowless, like Silence listening
To silence, for no lonely bird would sing
 Into his hollow ear from woods forlorn,
 Nor lowly hedge, nor solitary thorn ;
Shaking his languid locks, all dewy bright,
With tangled gossamer, that fell by night,
 Pearling his coronet of golden corn ” ?

Boys may then be seen clambering up the banks, where

grow my brethren, plucking the ripe nuts, and filling their pockets, as they run from bush to bush, or shaking them from out the husks, and, alas for us, frequently crushing down some of our finest branches. Our nuts, also, furnish winter stores to the light-hearted squirrel, who comes bounding from his nest in a hollow tree, to select the largest and the best; the field-mouse, in like manner, searches warily among the herbage for such as have fallen unobserved. You may see her, stealing with timid steps from her small nest, listening as if half afraid, and ready to run back on the slightest noise. Yet neither the mouse nor squirrel venture to visit our growing-places, while boys are within sight or hearing, nor yet the shy and solitary nut-hatch, who lays her eggs in hollows that have been deserted by the woodpecker. They each prefer my nuts to either beech-mast or acorns, and gather them for their winter hoards; and very curious it is to observe their different methods of opening them in accordance with their respective instincts.

The squirrel,

“ Who wants no other shade,
Than what by his own spreading tail is made,
Doth call the soundest, dextrously picks out
The kernels sweet, and throws the shells about.”

This he effects by rasping off the small end, and then splitting the shell in two with his long fore teeth, as readily as a school-boy with his knife. The field-mouse nibbles a hole, round as if drilled with a wimble, and yet so small, that it seems strange how the kernel can be extracted ; and the nut-hatch picks an irregular hole with her bill. She has no hands wherewith to hold the nut while thus employed, and therefore she fixes it, like an adroit workman, in a vice of Nature's making—some cleft or chink in a tree ; and taking her stand a little above, she either perforates the stubborn shell, or else, striking it with all her strength, she breaks it asunder, and readily obtains the kernel.

Painters owe to my ripe brown nuts an expressed oil,

and in former days they were worn as amulets. Even now, in remote villages, the simple peasantry occasionally regard them with some degree of veneration, as mentioned in an old calendar, published at least two hundred years since :—

“ Observe when first the hazel 'gins to bloom :
Go to her haunt, and bend a branch ; if this
Proves fruitful, such shall be thy corn's increase,
And in great heat huge harvests shall be found ;
But if with leaves alone the branch abound,
Then shalt thou thrash a chaffy stalk in vain.”

Different kinds of insects find in me a friend that never deserts them. The brindle spider and December moths are always welcome ; and that very uncommon insect, the *Apion ruficorne*, dwells contentedly upon my leaves. Many a time have I grieved to see the merciless collector come with his net and basket, and entrap the unsuspecting creature, when calmly resting in her green citadel. Eleven different kinds of insects, also, find a home and food within my kernels ; they, too, are welcome, for my hospitable table is widely spread.

The farmer looks at me in passing, and says to the trudging urchin who runs beside him, "You'll have a fine nutting season, my boy." Artists, too, who come into this woody neighbourhood purposely to sketch trees, make drawings of me, partly on account of my wild growing-place, and the rushing stream that leaps from out the hollow tree, which serves as a trough, and partly on account of my own picturesque appearance; but no one thinks concerning the curious instincts of such confiding creatures as resort to my leaves and nuts. Even when the fierce east wind, or unthinking boys in their haste and eagerness, have broken off some of my branches and laid them prostrate, they become the growing-place of a minute parasitic fungus, which is resorted to by an insect equally minute; and this fungus, originating upon the inner bark, makes her way through the outer, and throws wide her powdery seeds. Beside her may be seen her tawny saffron-coloured sister, the wasp-nest *Trichia*, rose-red when young, but afterwards assuming a deeper hue, and of which the capsule resembles

the nest of the insect whose name she bears. Their mutual office is that of piercing the wood with innumerable roots, resembling the finest hair, which act like wedges, and destroy the adhesion of the fibres; the bough in consequence soon becomes vegetable mould, serving thereby to enrich the parent tree, and to promote the growth of grass and flowers.

Thus, as I once heard a naturalist remark to his companion, it is the office of vegetable life to transform dead matter into organized living bodies. Such is the simple and beautiful circle of nature—ever changing, ever new. Everything lives, flourishes, and decays; even the noblest tree must fail,—but nothing is lost: the great principle of life only changes its form, the destruction of one generation is the vivification of another.

Behold in me a plain and homely personage, responded a calm, decided voice, from out an elder bush. I know nothing either of pedigree or romance, and no poet has ever thought me deserving even of a ditty; neither do I



W.F. del et lith.

R. B. & R. imp.

ELDER.

comprehend aught concerning organized living beings, or the beautiful circle of nature, to which my sister has so learnedly referred. I have inhabited my present site for many years; and the farmer's wife duly sends her blooming dairymaids, with the cowboy, to gather my ripe berries in autumn. My small services are always cheerfully rendered in time of need, and therefore I am in some request. Those who sit down to rest beneath my flowering branches soon forget their sorrows or their weariness; and he whose granary is troubled with mice, or with moles his garden, comes to me for leaves wherewith to drive them away. A jelly prepared from my fruit is in great repute for colds; and who has not heard respecting the excellence of elder wine? Water distilled from my flowers is used as a lotion; an infusion of my leaves readily destroys such insects as infect delicate plants,—they make also a cooling ointment; and if cabbages and fruit-trees be well rubbed with my green leaves and branches, no insect will attack them: they are used externally, when dry, as a fomentation to ease pain

and to abate inflammation ; and the shepherd well knows my value,—he drives his sheep to pasture on my twigs and leaves when afflicted with the disorder to which they become subjected when remaining too long in watery pastures, and they soon recover.

My wood is hard and yellow, and is valuable for skewers, and the tops of angling rods, and needles for making large nets. Children delight in my pith, and form balls for playing with ; and if one of my twigs is partially cut, then cautiously broken, and the divided parts carefully drawn asunder, corkscrew-looking vessels become apparent, by means of which my life is sustained. I, too, have my numerous dependants, who exclusively look to me for support. The orange-striped butterfly flies in and out among my branches ; and those who pass in a summer evening may often hear the shrill cry of that gigantic moth, the *Sphinx atropos*.

Such are my homely uses ; and although neither sung by poets nor eulogized by painters, I find a dwelling-place

in almost every farmyard. The cottager greatly values me, and hence I flourish with my kindred beside many a rustic home, ministering to the necessities of its inhabitants, and supplying their simple luxuries.

My two brothers, the dwarf or Danewort, and the parsley-leaved, live far remote. The first prefers to dwell amid ruins or on heaps of rubbish, though occasionally found in hedgerows; the second is said to be a native of Salisbury Plain, though found occasionally in the midland and northern counties.

A melodious voice was next heard. It came from a young arbutus-tree, who spoke with a slight Irish accent, and told concerning her distant home. I came, she said, from Ireland: my parent grew beside the waters of Killarney, fit emblem of perpetual spring:

“Green all the year; and fruits and blossoms blushed
In social sweetness on the selfsame bough.”

The farmer's son planted me while a sapling, an intruder, and yet welcome, and he charged his sister to take care

of me. "That tree," he said, "will remind you of your brother when he is gone, for there is no other like it in the county. I have often natted on the bank, and gathered water-cresses from beside the stream, and I shall like to know that my arbutus is growing there." Therefore it is, that the sisters bring their work to this lone spot, and sit beside the bank whereon I grow, and that, when my crimson berries first ripened, they carried the small bunch with exceeding delight to their mother.

Observe my pitcher-shaped blossoms: they contain a sweet juice. The bee cannot avail herself of their contents because of their narrow necks, but all such insects as have long trunks find in them a delicious repast. My blossoms, therefore, are the resort of many beautifully-attired butterflies,—gorgeous creatures that open and close their wings in brilliant contrast to my dark-green leaves. The bee, as I have already mentioned, rarely visits me: she prefers my sister, the hospitable elder, or the hazel, profuse of flowers.

I look well in winter, when hoar-frost has gemmed my leaves, and all other trees that grow around are leafless. My fruit requires twelve months in coming to maturity, at which time I exhibit simultaneously, and often in the depth of winter, the singular phenomenon of bright-green leaves, with elegant white or pink-tinted blossoms, and brilliant fruit.

Though growing beside the Lake of Killarney, and richly embellishing her tributary islands, thriving on barren limestone rocks in the west of Ireland, and on dry mountains in Scotland and the Western Isles, I am seen on the shores of the Levant, and in many a classic vale, where the Italian peasant pastures his flocks, rising often to the height of twenty feet, and casting a grateful shade on the sward beneath. Poets in all ages have sung concerning me. Virgil alludes to my young branches as winter food for goats. Horace wrote and sought repose beneath my shade; and the old Italian poet records in his 'Arcadia,' that my classic branches were employed by the Roman

shepherds to decorate their flocks on occasions of rustic festivity. And yet,

“Arbutus, that with scarlet grain
Doth richly crown Irene’s plain,”

is found in the most dissimilar localities: at one time, beneath a glowing sky; at another, amid the sternness of the Lapland Alps, in company with the solitary mountain willow, beside cold rivulets, and on the margin of dismal bogs, where even the hardy birch refuses to vegetate. Linnæus reports, that my tribe covered the ground, presenting oases of verdure amid the sterility of those stern regions, and that nestling beneath our shelter were seen the rich blue Alpine veronica and the two-flowered violet, sister flowers, and the loveliest of Flora’s offspring.

With this the friendly contention ended; and then a matron beech took up her strain, and said—You, my children, have spoken well and wisely concerning the good gifts which your Creator has assigned you. To one he has imparted

large means of usefulness; to another, a kindly heart whereby to aid in smaller things; a third embellishes her growing-place; whilst her sisters afford shelter to many wayfaring and homeless ones, and teach benevolence to nature's pilgrims. Rejoice in such possessions, whereby to glorify your Creator; and let not the sister who possesses much look uncomplacently upon the one who has but little; rather confess, that to each a gift is imparted suited to her place and station, and designed for universal benefit.

CHAPTER XIX.

BOX-TREE.

Buxus sempervirens.

How beautiful, in this my growing-place,
Am I, a lone box-tree, with snowy mantle
Thrown gracefully above my vest of green.

MEN, in the time of Charles the Second, used to regard my family with respect ; but now, said an old box-tree, we are considered of small worth. Then it was that, being held in honour, your forefathers were wont to replace the Christmas evergreens with sprigs of our branches on Candlemas-day, and afterwards with a succession of flowers, and that children, being trained up with equal respect for



W.F. del et lith.

R.B. & R. imp.

BOX.

us, used to sing while employed in displacing the boughs of holly :—

“Down with the rosemary and bays,
Down with the misletoe;
Instead of holly now upraise
The greener box for show.

“The holly hitherto did sway,
Let box now domineer,
Until the dancing Easter-day,
Or Easter eve appear.”

Herrick.

Who has not read concerning the appropriation of our boughs for the internal decorations of churches at Christmas; and that in the north of England attendant mourners cast our sprigs into the grave, emblems of affection in their greenness and enduring qualities—a simple rite, yet appealing much to the heart?

My name, associated with the plane and bay, is immortalized by the natural historian Pliny. He selected us from among all forest-trees, however flowering and um-

brageous, with which to adorn the garden of his Tuscan villa.

“In front of my house,” said he, “lies a spacious hippodrome, or open space, encompassed on every side with plane-trees, entwined by ivy, which, spreading from one tree to another, forms a chain of verdure, and gracefully festoons the trunks and branches. Between each of these are placed box-trees, and behind them are bay-trees, which blend their shade with that of planes. This plantation, forming a straight boundary on both sides of the hippodrome, bends at the further end into a semicircle, set round and sheltered with cypresses that cast a deeper and more solemn shade; while numerous walks or winding alleys, lying open to the sun, are full of roses. Having passed through them, you enter a straight walk, breaking out into a variety of others, that are divided by box hedges. At one point a little meadow lies before you in its greenness; at another you come upon a company of box-trees, cut into a thousand different forms, sometimes into letters,

expressing the name of the master or that of the artificer ; again, little obelisks are seen intermingled with fruit-trees ; and suddenly in the midst of this elegant regularity you are surprised by a judicious blending of natural scenery, encompassing a spot surrounded with dwarf plane-trees." Fountains and marble basins, into which rushed clear streams, that as quickly rushed forth again, with marble seats and alcoves of exquisite workmanship, were dispersed about the garden, shaded oftentimes with planes and box-trees ; and everywhere was heard the pleasant sound of murmuring rills, that watered different spots of verdure, and in their progress refreshed the whole garden.

And truly, till the present degenerate age, not only in this country, but in foreign parts, was the box-tree highly estimated. Even now in southern Europe members of our family are cultivated in flower-pots, with as much attention as you bestow on myrtles. Time was, according to Evelyn, when "rare natural bowers, cabinets, and shady walks in the box copses were much admired, and men sought for them both wide and far."

Our wood was considered valuable; even now it is in great request; and one cutting of the timber has been sold for more than the fee-simple of the land whereon it grew. Being hard and smooth, yellowish, and not apt to warp or split, it is equally required for the turner's use, as in the time of Virgil:—

“Nor box nor lime without their use are made,
Smooth-grained, and proper for the turner's trade.”

The wood-engraver well knows how to estimate its value, as also the maker of mathematical instruments. Such are the inherent qualities contained in every box-tree.

Let him who desires to appreciate our actual beauty visit the Surrey hills, when snow lies deep upon the ground. He will see a brotherhood of friendly trees, growing thick together, and affording a ready shelter to birds and animals. You might imagine that in the depth of winter, when not a blade of grass lifts her green head above the snow, sheep and cattle would pasture upon the

leaves ; but from this their intense bitter effectually secures them. And not only on the Surrey hills, but at Box-hill, near Dorking ; and at Boxwell, and Boxley, in Gloucestershire and Kent ; and on the chalk hills near Dunstable, grow numerous box-trees.

I stand, continued an old box, which had attained the height of twenty feet, on the Surrey hills, the sole survivor of a patriarchal wood. Young trees grow round, but their heads are covered with the snow that fell last night, and I remain alone, dense and compact—a vegetable column, conspicuous as far as the eye can reach. Not a footstep may be seen on the pure white dazzling surface, neither of men nor animals ; not a tree lifts up its head, nor a branch reveals the many that are hidden from sight ; but should any one rashly attempt to reach my growing-place, he would meet a barrier of intermingling boughs, and many a strong trunk to impede his way. Nature is enwrapped as with a winding-sheet, elaborately worked, and sparkling with crystals ; yet still a winding-sheet. But look how

beautiful the pure white mantle, that is gracefully thrown over me, concealing in one part, in another revealing, my shining foliage—a drapery of snow, which no art of man can emulate.

You know not how many peaceful ones are sheltered among my branches:—small birds, that sing merrily to repay my care of them when the frozen streamlet is unbound and primroses are seen beside her margin; the rabbit has made her burrow among my roots, and the hare crouches beneath the sheltering branches of my tributary box-trees; dormice are sleeping here, curled up in their soft warm nests; and partridges and pheasants are here also. Look around; the whole country is covered with snow; here and there may be seen cottage-roofs, white as the dazzling fields, with icicles depending from the eaves, but they afford no shelter to weary or timid ones; neither can single trees, which stand with their bare branches against a wintry sky; nor yet yonder wood, which presents in its aggregate innumerable dark-coloured columns fringed with

snow, and upholding branches covered and glittering with icy particles. But the box retains her greenness where all else is desolate, the home of such as need protection; cheering the passer-by, and suggesting, amid the sternness of winter, thoughts of thankfulness and hope.

CHAPTER XX.

SCOTCH FIR.

Pinus sylvestris.

“The aspiring fir
Wears his undying green, but the strong oak
Like smitten giant casts his honours down,
Strewing brown earth with emerald and gold.”

Mrs. Sigourney.

“Dost thou not behold, Malvina, a rock with its head of
heath? Three aged firs bend from its summit, and green
is the narrow plain at its feet.”

Thus sang the Celtic bard, when describing the tomb of
a fallen warrior upon the western shore of Caledonia; and



W. F. del et lith.

R. B. & R. imp.

FIR.

such is not unfrequently the wild sojourn of many among my tribe.

Grandly picturesque in our appointed habitats, and in unison with rocks and torrents, who can pass us by unnoticed? said the fir of Basilsleigh. Mine is a lonely dwelling-place, far from any of my alpine brethren. I have watched beside this deserted mansion, till grey lichens have grown upon my branches, and made hoary my tall stem; yet still I watch, and the cross-bill would sorely lament for me, if I were to fail.

Would you, however, Stranger, wish to see my clan in all its pride of numbers, go to the mountains of Invercauld or Glenmour, which seem as if divided by innumerable firs, presenting in their aggregate a oneness of shape and hue which has no parallel among forest-trees. The scene is indescribably solemn, and carries back the mind to those far-off days when wide fir forests went onward in their might, stooping into untrodden valleys and ascending the rugged sides of mountains, even to the verge of perpetual winter.

The old fir-woods of Inglismaldie in Kincardineshire, with those of Craibstone, are associated in like manner with many stirring recollections. Beneath them grows the two-flowered Linnæa, or *Linnæa borealis*, a humble Lapland plant, emitting at night the sweetest fragrance, and first discovered in this country, beneath their shade, by Prof. S. Beattie; a plant thus named by Gronovius, in allusion to the unobtrusive habits of the great Linnæus.

Men affect to despise our tribe; but are not our ramifications irregular and beautiful, and picturesque the colour of our leaves and mode of growth, resembling the stone pine in the easy sweep of our slender stems, and in the colour of our bark, which assumes a rich deep brown? Yet some there are who think otherwise; and the old woods of Invercauld have rejoiced to see around them sixteen millions of stripling firs. The veterans of those woods! how magnificent were they, many of them above one hundred feet high, branchless nearly to the top, because of their great age, and grey with lichens. Many such have

fallen; they saw their younger brethren sink before the blows of the wood-cutter, and lost in them those natural guardians which broke the force of the wind when assailing their aged trunks; but the friendly trees were down, and the wind came in his might and power, howling over the denuded tract; and those who looked towards the old pine-wood, next morning, saw that its noblest trees had fallen.

Adversity is said occasionally to strengthen the human character, to call forth hidden qualities, and to make men act. So it is with us: our bleak dwelling-places render us superior in texture and enduring qualities to such as grow more rapidly, perhaps even more luxuriantly, in the English lowlands. Pliny remarked this, when speaking of the pines of Italy: he said that timber which grew in moist and sheltered places was less compact and durable than such as grew on hills. Homer, also, assigns for the same reason a spear to Agamemnon formed from a pine that had braved the fury of the tempest.

Our tribe, therefore, are seen in all their magnificent

proportions among the highlands of North Britain. There we grow wild, differing as much from the formal ornament of the pleasure-ground, as a hardy mountaineer from the sedentary mechanic of a crowded city. Far back as either history or legend has preserved the origin of heraldic cognizances, flowers blossoming beside the road, or favourite trees, have formed the badge of respective chieftains. As such, our mountain tribe was anciently appropriated to the clan Alpine.

“Hail to the chief, who in triumph advances,
Honoured and blessed be the evergreen pine;
Long may the tree in his banner that glances
Flourish, the shelter and grace of our line.”

I have said, that our favourite haunts are wild and mountainous regions. A poor and sandy soil well contents us; we neither require depth nor richness, nor yet clear streams, with which to lave our roots. Hence the most sterile lands of Scotland have been rendered valuable by extensive fir plantations; and yet, though loving the wild blast and storms of winter, we disdain not to flourish in

lowland tracts, when the soil is sandy, and neither stagnant waters, nor yet streamlets oozing from the ground, intrude upon our habitats. Take for instance the fir-wood of Crooksbury Heath in Surrey, including twelve acres in the midst of a wide unprofitable waste. Carts were seen one morning, coming across the common, filled with Scotch firs about four years old, and these, being carefully removed, were planted at the distance of four feet apart without any preparation of the ground. The plants attained the height of fourteen feet in twelve years, and, being thinned, produced eight pounds per acre: the thinnings were sold for hop-poles, and the branches made into bavins for burning lime. This done, the trees were left unmolested for another six years, when, having grown to the height of forty feet, a second thinning took place, and fine growing firs fell before the hatchet of the woodman, and were turned into scantlings and rafters. Upwards of eighteen thousand still remained upon the twelve acres, and their value was estimated at five hundred and seventy-three pounds.

Many a wild and disforested tract of land in the Highlands of Scotland, equally with such in England, were anciently covered with vast fir-woods. Forests of such have been found imbedded in the mosses of the north, forming a substratum to Roman roads. This is the case in the isle of Anglesey. On sinking the outlet of a lake called Llwydiat, in Pontraeth, venerable remains of patriarchal trees were thrown open to the light of day; and though men have sought to invalidate our claim as aboriginal in Britain and its dependencies, the question is set at rest by such discoveries in mosses, antecedent to the settling of the Romans; moreover, among the many names given by those conquerors as belonging to our tribe, three are purely and absolutely British.

Subterraneous strata of bog-fir also pertain to Ireland. The bogs of Glancullen alone supply Dublin with fuel, and the wood, beaten into strings, and combed and spun, is manufactured into ropes, which are capable of resisting the weather much longer than those made of hemp. The

fishermen of Loch Broom, in Ross-shire, convert the bark to similar purposes. Travellers who visit the high moorlands at the head of the Derwent, between Blaikland and Wolsingham, on the river Wear, may see the roots and trunks of noble fir-trees protruding from the black peat moss, in consequence of the water being drained off, and the peat left dry, though the trees are no longer indigenous. Such is also the case on the mountains of Cross Fell, at an elevation of nearly three hundred feet. But though planted and protected on a lower level, our tribe never attain the size of those ancient pines. A few, of considerable dimensions, maintain somewhat of our ancient dignity by the Eden at Corby, in Cumberland, but on moorland soils, once nobly guarded and embellished with giant trees; those of the present day seldom thrive after thirty or forty years of age; their strong central roots no longer pierce the rough soils, and, descending far downwards, grapple the firm rocks, but seem impeded in their course, and the horizontal roots, spreading according to their custom very near the

surface of the earth, yield no anchorage to the parent trees. The first high winds consequently lay low the degenerate race, which have neither the strength nor dignity of their forefathers.

Our wood affords the best red or yellow deal, being smooth and light and easily cloven. Dwellers in the northern regions make bread from our bark, resembling the cassava, and by no means unpalatable when flavoured with pine jam. They choose a tree whose trunk is even, for these contain the least resin, and strip off the bark in spring, when it separates most readily. This is dried gently in the shade, then in a greater heat, and afterwards reduced to powder. With this they mix a small quantity of corn-meal, and knead it into bread. Children are fond of the fresh bark, when either rasped or shaved with a knife. Our topmost branches are mixed with oats for horses, and the young shoots when distilled afford a fragrant essential oil; the bark is used for tanning; and an infusion of the buds is valuable as an antiscorbutic, as also the fresh cones

when boiled, and these are a principal ingredient in spruce beer. Tar is moreover extracted from our roots, in a manner similar to that practised by the ancient Greeks; the juice being received in earthen trenches, and afterwards freed from all impurities by drainage through wicker baskets. Our resinous roots are divided into small splinters, and used instead of candles; and this custom, which prevails in the northern regions, is equally prevalent at Bedowâs in Turkey. Fishermen make ropes of the inner bark, and our trunks and branches yield also turpentine and resin.—

“The firre that oftentimes doth rosin drop.”

Our tribe, therefore, affords materials for erecting both houses and bridges, with every requisite for household furniture; to those who live far north we are especially valuable for constructing sledges, carts, and boats, besides yielding fuel, and ashes for manure. Nor is man alone profited by us. The bark in which our fruit is enwrapped is the principal food of the *Loxia curvirostra*, or Cross-bill,

and by her ministry innumerable seeds are committed to the earth. Different kinds of winged and creeping insects derive nourishment from the bark, or leaves, or flowers ; and the *Aphis Pini* converts the buds or young shoots into a beautiful gall, somewhat resembling a fir-cone or pine-apple in miniature. A species of *Chermes* occasionally produces an enormous scaly protuberance at the summit of the branches, and formed by the extravasations of the juices, in consequence of punctures made for the deposition of her eggs. The magnificent and rare *Adonestis Pini* feeds upon our boughs ; and entomologists conjecture that ten different species are sheltered and sustained by the hospitable pine.

But who may number the homeless creatures that take refuge beneath our shade in the cold regions of the furthest north ?—Bears and arctic foxes, squirrels and ermines, hares and sables, are sheltered by those gigantic firs, whose giant arms uphold a load of snow, and prevent it from falling to the ground. The ground, too, is covered with soft moss

and dry leaves that fall at the approach of winter ; while the same bounteous hand, which has so abundantly provided for the otherwise homeless creatures, has, according to St. Pierre, dispersed along the margin of the forests vast numbers of the scarlet-berried service-tree. The sparkling clusters of bright fruit are vividly contrasted with the whiteness of the snow, inviting all birds to an asylum ; and thither quickly repair the partridge and moor-cock, the snow bunting and ptarmigan, to find both food and shelter among those beacon trees.

Forest-trees shed their leaves in winter, but ours continue clothed with verdure. Resinous juices, that abound within the trunks and branches, defy the rigour of frost ; the sap, therefore, remains uncongealed ; whilst our close, compact branches resist the impetuosity of the winds that rage around our stern and rugged sites. And further, being designed by our Creator as representatives of eternal summer, though shrouded half the year with snow, our slender strap-shaped leaves, yet smooth and rigid, are so constructed as

to reverberate the heat in a manner similar to the hair of animals. They also afford wholesome nourishment to sheep and cattle, which is all-important in mountainous countries where snow often lies deep upon the ground for months together.

Thus wonderfully constructed for the sternest growing-places, we abound towards the frozen north, extending with our brethren in congregated myriads from Breslau in Silesia to the shores of the Arctic Ocean, and from Norway to Kamtschatka, covering also great part of Finland, Ingria, and Esthonia, with an immense sweep of country between Petersburg and Moscow. And thus we stand, with power to repel the cold, and strength to bear up an enormous weight of snow; protecting, cherishing, and blessing every living creature, whether gentle or rapacious,—whether the savage inhabitant of our native regions, clothed in thick fur and growling defiance as he passes, or whether the timid and light-hearted squirrel: all dwell in peace together, unconscious sleepers, slumbering in hollow trees or caverns,

or nestling among the soft dry leaves till the coming back of spring and the waking of nature from her long winter sleep. Beautiful is that waking up, even in the sternest regions. The air is rendered fragrant by our balmy exhalations, and even the most aged and solemn-looking of our tribe no longer present a dark, glaucous, unvaried hue, but suddenly become enlivened with light terminal green buds; some even present the appearance of vast pyramids of verdure, tastefully adorned with golden-coloured tufts of anthers.

Our boundary terminates on the Lapland Alps, at two thousand eight hundred feet below the line of perpetual snow. Even there our ministry is beneficial to the occupiers of small farms, who chiefly support themselves by fishing, with the addition of turnips and potatoes; for such are cultivated even higher up the mountains, although barley ceases to ripen, and the elegant smooth speedwell is the only small flower that braves the severity of the cold.

The Highlands of Scotland are, doubtless, our native haunts, as far as Britain is concerned ; but we are citizens of the vegetable world, and no other forest-tree is, perhaps, so extensively diffused. Our brethren, as already mentioned, spread over that part of Europe which extends beyond the 55th degree of latitude. They are found, also, in central parts, among the Pyrenean and Tyrolian, the Swiss and Vosgean mountains, as also in North America. Perchance those exquisite lines refer to them which describe the landing of the pilgrim fathers :—

“ The breaking waves dashed high, on a stern and rock-bound coast ;
And the woods against a stormy sky their giant branches tossed,
And the heavy night hung dark, the hills and waters o’er,
When a band of exiles moored their bark on a wild New England shore.

“ Amidst the storm they sang, and the stars heard, and the sea ;
And the sounding aisles of the dim woods rang, to the anthem of the free.
The ocean-eagle soared from his nest by the white waves’ foam ;
And the rocking pines of the forest roared. This was their welcome home ! ”

Hemans.

Remains of the great Rannoch forest still linger on the

confines of the counties of Perth, Inverness, and Argyle. Tangled roots, and solitary time-riven trees, even groups, are seen here and there, in places nearly inaccessible, and which denote that the Rannoch forest stretched across the country, forming a vast sweep of mingled boughs and columns, now ascending heights that were nearly perpendicular, now stooping into valleys, and again covering vast plains, mingling as they went on with ancient fir-woods, of which traces still remain, on the rivers Ness and Beaully, the Findhorn, Dee, and Spey, and forming a wide brotherhood with those of Glen-morna-albin, or the great Caledonian forest, as also with the more western districts.

Men in old times knew little of our value. At one period the demand for our timber was so trifling, that the laird of Grant obtained only one shilling or eighteenpence for as many as a labourer could cut down in a long summer day. But years went on, saw-mills were set up, and a newly-discovered method of removing even the state-

liest trees, after the Norwegian fashion, was suggested, and put in practice. High prices were obtained in consequence; and about one hundred years since, the Duke of Gordon sold his fir-wood of Glenmore for ten thousand pounds. Many of the trees measured from eighteen to twenty feet in girth; and a plank nearly eight feet in breadth is still preserved in Gordon Castle.

Alas for the Rothiemurchies forest, the most extensive in Scotland! That noble forest comprised above sixteen square miles. It was, and is not. The high price of timber hastened its demolition, although it had yielded twenty thousand per annum to the proprietor. And alas for the kingly forest of Glenmore, which equalled that of Rothiemurchies, and formed one continuous woodland! How are the mighty fallen! giant trees, which resisted the storms of ages. Time was when those great forests seemed almost interminable; and among them were calm silent lakes, which reflected on their mirror-like surfaces contiguous forests of Scotch fir, clothing one distance after

another, mantling the broken sides of near declivities, beyond which extended a lofty range of densely-wooded hills, pine-clad, and dimly seen in the far distance. The lakes and mountains still remain in their wildness and sublimity; but the forests are laid low,—they no longer awaken thoughts of poetry or romance.

Alas for those once noble forests, containing both old and young and middle-aged trees, beloved of poets, and associated with the most stirring periods of Scottish history! Nought remains to point out their aged sites, except vast denuded tracts, with here and there gigantic skeletons of old trees, standing alone, or with two or three companions, firm to look upon, though unfit for timber,—some few stripped of their bark by winds and frosts, others leafless; others, again, covered with a species of pale bluish-grey lichen, which imparts a kind of unearthly hue to their trunks and branches, while, stretching forth their bare arms towards heaven, they seem propitiating some threatening storm to spare them from utter ruin.

Still there is hope for the forests of Rothiemurchies and Glenmore. The latter is even now replenishing itself. Young saplings have sprung up, thick as seedlings on a hot-bed, and in the same relative degree of thickness do they grow together, till thinned out. You might almost fancy that a kind of competition took place between the saplings, creating rivalry, and accelerating their progress to perfection; while the nearness of their growth, and the want of light and air, prevents the formation of lateral branches, or, if formed, speedily destroys them.

Thus, therefore, is there hope that forest-trees may reclothe those deserted tracts, and that the music of wild winds may again be heard among their branches : for

“ Mighty winds,
That sweep the skirt of some far-spreading wood
Of ancient growth, make music not unlike
The dash of ocean on his winding shore,
And lull the spirit while they fill the mind.”



V. P. del et lith

B. B. & R. imp.

Y E W.

CHAPTER XXI.

YEW-TREE.

Taxus baccata.

I have heard the wind
Howl round a British stone-hut :—that same wind
Did nimbly come and go, till forest haunts
Gave way to Roman dwellings, and its voice
Sounded at midnight, rousing men from sleep,
When Danish vessels neared our hapless shores ;
And now, or gale or zephyr, that same wind
Sweeps through my old boughs, or doth stir the corn
With gentle murmurs rustling on the ear,
Boding of peace, with pleasant sounds at eve.

STARTING not unfrequently from out interstices in rocks,
amid ruins and places where history or tradition tells of

former days, and concerning great ones of the earth, who does not behold in my tribe, said a magnificent yew, objects of great interest? Castle Eden Dean, near Durham, is one of our favourite localities; and travellers journey from foreign parts to visit the pride of Lorton vale, and the four fraternal trees of Borrowdale.

There is a yew-tree, pride of Lorton vale,
Which to this day stands singly in the midst
Of its own darkness, as it stood of yore,
Nor loath to furnish weapons, in the hands
Of Umphraville or Percy, ere they marched
To Scotland's heath, or those that crossed the sea,
And drew their sounding bows at Agincourt
Perhaps at earlier Cressy, or Poitiers.
Of vast circumference, and gloom profound,
This solitary tree! a living thing,
Produced too slowly ever to decay;
Of form and aspect too magnificent
To be destroyed.—But worthier still of note
Are those fraternal four of Borrowdale,
Joined in one solemn and capacious grove;
Huge trunks! and each particular trunk a growth
Of intertwined fibres serpentine,
Upcoiling, and inveterately convolved,

Nor uninformed with phantasy, and looks
That threaten the profane ; a pillared shade,
Upon whose grassless floor, of red-brown hue,
By sheddings from the pining umbrage tinged
Perennially ;—beneath whose sable roof
Of boughs, as if for festal purpose decked
With unrejoicing berries, ghostly shapes
May meet at noontide,—Fear, and trembling Hope,
Silence, and Foresight, Death the skeleton,
And Time the shadow,—there to celebrate,
As in a natural temple, scattered o'er
With altars undisturbed, of mossy stone,
United worship ; or in mute repose
To lie, and listen to the mountain-flood
Murmuring from Glenamara's inmost cave.

Old trees of equal antiquity and interest are found in clefts of the Borrowdale rocks, and on Cowgie Scar, near Kendal, in woods above Derwent bridge, and on the shores of the Wear, below Hilton Castle. Tourists also speak of such on the mountains called Yew-barrow, in accessible places of Furness Fells, and as being scattered over the Clee Hills and the cliffs of Cheddar. Indigenous to the limestone eminences of Gloucestershire, a fine specimen occurs in a

wild secluded spot not far from Pitchcombe; and a time-worn tree is, or was, standing some years since in Stinchcombe Wood, on the verge of the lofty elevation that overhangs the village. This tree, in the reign of Charles the First, concealed for three days and nights a gentleman of the name of Tynedale, during the plunder and conflagration of his residence, Melksham Court.

My family has ever been admired for the sylvan grandeur and the umbrageous droop of their widely-spreading branches. Strange it seems that such noble trees should have been cut into uncouth shapes; but so it is, and even our greatest admirer, Evelyn, speaks of yew hedges as ornamental and advantageous. At the present day, a yew screen in the garden of Albury Park still remains, and is so arranged as to afford a cool walk during the hottest season: it is presumed to have been planted under his superintendence, and, having been trained to a considerable height, throws a shadow on either side, according to the hours of the day.

A fine specimen of the old yew-gardens is still preserved in the pleasure-grounds of Gormanston Castle, Meath : it was originally intended to represent the cloisters of a monastery ; the outer walls and open arches towards the centre being of clipped yew, and the space so surrounded, answering to the quadrangle, is tastefully laid out in a flower-garden. Time, however, who effects continual changes, has caused many such perversions of our brethren to disappear : among these is an old yew-garden in Gloucestershire, that was, perhaps, unequalled. In the centre stood a magnificent yew-tree, of which the branches about mid-way were spread horizontally round the stem, and then, having been allowed to grow upright, were again bent at the height of about seven feet, to form a roof. A room was thus constructed capable of holding several persons, and chairs were made with the small branches of the yew. A staircase, with living banisters, ascended to this curious apartment, leading from a passage formed of dwarf yew-trees on either side, and opening on a large table, formed also of living

trees, closely planted and clipped, and surrounded with arm-chairs of the same. The old tree remains, but the staircase and passage, the table and seats, have long since disappeared.

My wood is hard and smooth, and beautifully veined with red : it is used at the present time for axle-trees, and cogs for mill-wheels, and flood-gates for fish-ponds, which are almost imperishable,—for bedsteads, which are said to deter bugs, and for gate-posts, lasting as those of iron. The wood is, likewise, in great request for chairs and the steps of ladders.

The berries are sweet and viscid, and children eat the pulpy part without inconvenience, as also swine and field-fares ; but the fresh leaves are fatal to the human species, and loppings in a half-dried state are detrimental to cattle. Instances have frequently occurred wherein healthy animals which have been turned into fields, or paddocks, where the gardener has thrown his clippings, have died from eating them, in the course of a few hours. A remedy has, however,

been found in four ounces of sweet-oil, taken at intervals of two hours in warm ale, and after that a pint of salt and water.

From injurious effects, thus produced, have doubtless originated unfounded suppositions as regards the baneful nature of our foliage. Pliny has transmitted them to posterity; and father to son has handed down the sad tales of Thasius and Cantevateas, mentioned by Cæsar.

Why is it that our stately brotherhood have disappeared from sites that they once occupied? We may not solve the question, nor can man, with all his boasted wisdom and intelligence. At one time indigenous in Ireland, our widely-spreading branches might have rendered us emblematic of generous hospitality; but we are now unknown, our sole remnants being discovered in a fossil state.

Most trees are found growing in vast numbers. Forests of oaks, and ash, and elm, of beech, and pines, sweep over hill and dale, extending further than the eye can reach or the foot has ever traversed; but the yew dwells alone, except when congregated by the hand of man; and yet,

wherever growing, an honoured tree, either in churchyards or beside mansion-houses; presenting an unchanging foliage, which aptly indicates our enduring nature, and which renders us an emblem of sorrow and immortality. As the first, we are found in almost every village church; as the second we are substituted for the palm, on Palm Sunday. Two or three young scions, or else branches from our strong boughs, were anciently selected for the purpose; and the finest, having been duly consecrated, were valued at twenty times the worth of its own kind, and double that of the finest oak, as you may learn from an ancient record.

“Wherefore,” saith Master Caxton, “holy chirche, this daye, makyth solemne processyon, in mynd of the processyon that Chryst made this day. But encheason that we have none olyve that berith greene leaf, algate, therefore, we take ewe insteade of palme and olyve, and beren about in processyon, and so is this day called Palme Sunday.” In confirmation of which we may add, that in the church-

yards of East Kent yew-trees are even now called palms. Small branches were, likewise, wont to be borne at funeral solemnities, and cast into the grave, yet few among the villagers inter their dead beneath our shade. They prefer that the sun should shine brightly on the green turf that covers them, and daisies be free to open their pink-tinted flowers among the grass. And why? because it is conjectured that bodies interred beneath the shade of trees return to their pristine dust much sooner than when deposited in the open ground. This may in some degree be accounted for, by the continued dripping of boughs in rain, and by the comparative absence of sun and air. But a mournful poet has thought differently, and thus apostrophizes his favourite tree :—

“ The funeral yew, the funeral yew !
How many a fond and tearful eye
Hath hither turned its pensive view,
And through this dark leaf sought the sky !
How many a light and beauteous form,
Committed to its guardian trust,

Safe housed from life's tumultuous storm,
Hath safely melted into dust !
While mindful love would long renew
Its grief beneath the funeral yew.

“ More meet to deck the lowly grave,
These living plumes by nature spread,
Than sable tufts that proudly wave
Their pompous honours o'er the dead.
The oak hath doffed his leafy pride,
As frowning winter passed him by ;
The grass hath shrunk, the flowers have died,
Beneath bright summer's burning sky :
But all to love and sorrow true,
Unblenching waved this funeral yew.

“ I had not from the mounds below,
Thus borne their beauteous canopy ;
But life has many a secret throe,
And sad remembrance many a sigh.
And oh ! 'tis sweet in hours of toil,
Amid the throb of struggling grief,
To rest the aching eye awhile
Upon this dark and feathery leaf,
And think how softly falls the dew
On peaceful graves beneath the yew.”

Among such of our kindred trees as were devoted to religious purposes, the Fortingal yew, in a solitary church-yard amid the Grampian mountains, is one of the most interesting. It is now a ruin, but when entire was, according to Pennant, at least fifty-six feet in circumference. An ancient yew also remains at Fountains Abbey, in Yorkshire, supposed to have been standing before the monastery was erected, in the beginning of the twelfth century.

When planted beside castle-walls or baronial mansions, our tribe were in great request for making long-bows. And this not without reason, for, independent of their importance, a bow of the best foreign yew was sold for 6s. 8d. in the days of archery, whereas one made of English yew might be obtained for only two shillings. In those stern ages bended bows were in greater request than either shield, or sword, or spear; and dexterity in their use decided the battles of Cressy, Poictiers, and Agincourt. By the aid of our strong boughs, when thus appropriated,

was the flower of French chivalry either dispersed or destroyed; and even men-at-arms, when cased in mail, vainly endeavoured to keep their stand before the force

“Of England’s arrowy sleet-like hail.”

Hear what old chroniclers have written concerning the last momentous contest:—“The warlike band of archers, with their strong and numerous vollies, covered the air with clouds, shedding, as a cloud shades with a shower, an intolerable multitude of piercing arrows, and inflicting wounds on the horses, which either threw their enemies, the French horsemen, who were arrayed to charge them to the ground, or else forced them to retreat, and so their dreadful and formidable purpose was defeated. And when the French nobility rushed forward to seize the English standard, and the battle raged very fiercely, our archers pierced the flank with their arrows, and forced them to retreat.” Thus, also, were the Scots sorely worsted at Hamilton, and the Irish in old times. But of deadly feuds and

border frays, none have been better sung than the encounter of Earls Percy and Douglas.

“ With fifteen hundred bowmen bold,
All chosen men of might,
Who knew full well, in time of need,
To aim their shafts aright.

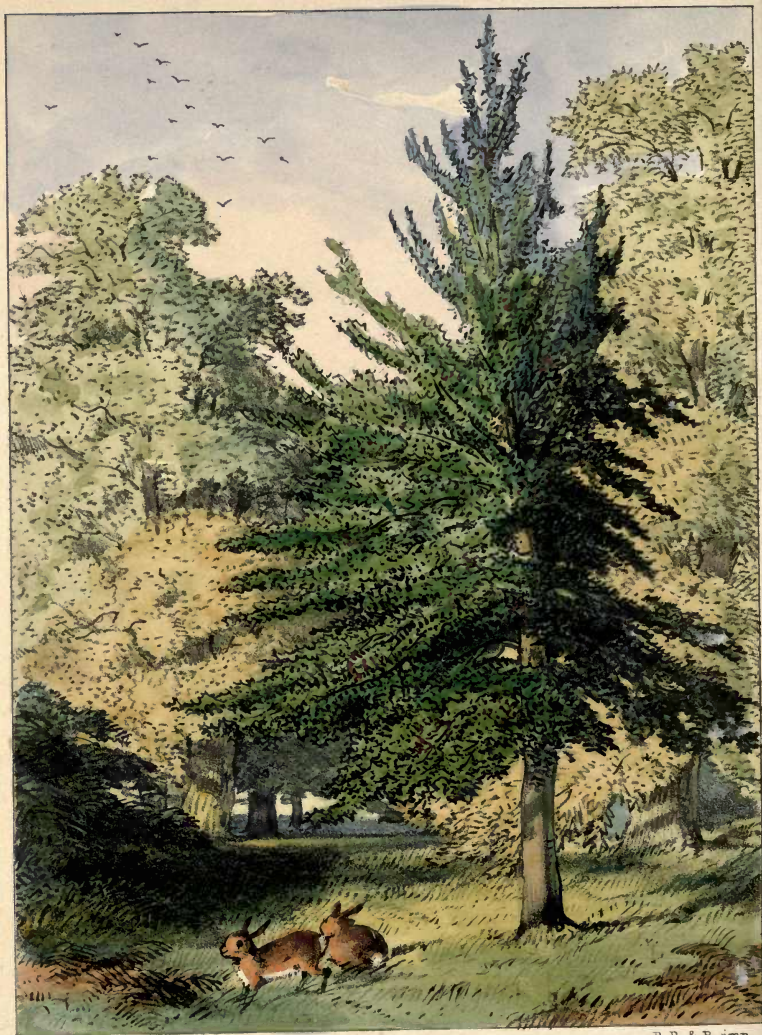
“ Lo ! yonder doth Earl Douglas come,
His men in armour bright ;
Full twenty hundred Scottish spears,
All marching in our sight.

“ Our English archers bent their bows,
Their hearts were good and true ;
At the first flight of arrows sent,
Full three-score Scots they slew.”

Hence, therefore, the planting of our trees for purposes of archery, and their association with places of historic interest. Of these some still remain, beside the ruined homes they once embellished, or on sites where scarcely a stone remains of those stern fortresses that once held

the surrounding country in subjection. At Martley, in Worcestershire, one of our brethren measures twelve yards round ; and an extraordinary tree of the same kind may yet be seen in the palace-garden at Richmond, planted three days before the birth of Queen Elizabeth. And still more interesting is the celebrated yew-tree of Ankerwyke, near Staines, which is traditionally believed to have waved over the confederate Barons of Runnymede.

“ Here patriot barons might have musing stood,
And planned the charter for their country’s good.”



W. F. del. & lith.

R. B. & R. imp.

HOLLY.

CHAPTER XXII.

HOLLY-TREE.

Ilex Aquifolium.

Look on me and rejoice :

All winds that come and go do aid me well,

Bright sunbeams, and soft dews, each working kindly

To make me what I am.

WELL, my boy, what are you coming here for, with your knife and basket? Does your mother believe in hama-dryads, and has she sent you with an annual offering? Take care,—the snow is deep beside the style, and if you slip from off the plank, assuredly your mother will long wait for your return. Take care, also, how you

clamber over the heap of stones,—they are very slippery ; keep along the side of the hedge where the snow is drifted off. Now you have a safe standing-place, tell me what you want.

Holly-tree, Holly-tree, listen to me,
My mother has sent me, with carols of glee ;
The old church is grey, and the ivy is white,
For the snow it fell fast on the branches last night.
Oh, give me some boughs, and some berries all red,
To fill the new basket I bear on my head !
It was made from the willow that grows by the rill,
When the streamlet danced forth, in its glee, from the hill.
My father is waiting ; my sister and brother
Look forth o'er the snow waste ; and hark to my mother—
Her clear voice is singing, “ Be pleased, Holly-tree,
To send us some boughs, for our carols of glee.”

And thus from year to year have I heard that song, said a patriarchal holly on Rockly-ridge ;—at first in old English, with rude uncouth lines ; then varied to suit the fashion of times long past ; and now modernized by some village poet. I remember thy great grandfather, my ruddy boy, coming up from the old farmhouse in the valley. His

hair, like thine, was flaxen, his cheek as red, and his steps as light. I warned him, as I warn thee, to beware lest he fell into the deep snowdrift, and he came warily: but the day was exceeding cold, and the bleak east wind was hard to bear; his benumbed hands could hardly hold the knife, with which to cut my branches, and he had not much heart to sing the old song. However, he went away, having his basket well filled with boughs and berries. Thy father, too, he came here, while yet a stripling, singing the same song. I remember, as if it were but yesterday, his black raven locks and fine forehead, and I thought his voice one of the most melodious that I had ever heard. He sang his song blithely, and cheerfully went on to fill his little willow basket; when suddenly snow began to fall, at first gently, then heavily, but the boy worked on, till having done his task, he turned to go home, singing as he went—

Long mayest thou flourish, O Holly-tree,
And thy branches wave strong o'er the bold and the free.

But the wind had risen, and drove the snow full against

him,—now whirling in eddies, and now falling so thick as to obscure the air. I called to the poor boy, and bade him beware of the deep hollow by the style, and the slippery surface of the frozen brook; and he did his best to find the road; but all in vain. The old pollard oak, with its huge, grey, misshapen head, could not help him to find the way, nor yet the hay-stack, nor the open shed,—important waymarks among snowy fields;—they were all obscured alike; still I hoped that he might get safe; but at length he fell, benumbed with the cold, and snow began to settle upon him like a winding sheet.

I heard a loud halloo, ringing through the frozen valley, and lights began to gleam in all directions, for by this time the snow-storm was moving slowly off; had it been otherwise, all search would have been fruitless. I knew the voice of your grandfather, then a strong young man, calling wildly on his child, and with him came all his village neighbours. They even climbed up to my growing-place, and held up their lanterns to look for the boy; but him they saw not,

and then they turned back, seeking in all directions, but in vain : neither voice nor sound was heard. Presently I saw torches gleaming through the trees, in the direction of Rockly Hall, and I could dimly discern the squire, with his gamekeeper and men-servants ; and when they left the avenue, I heard the squire calling to his dog, " Seek him, Keeper !" By this time the full moon had risen, and her light served to discover a black object on the snow, winding about, and doubling and snuffing here and there, till, having got upon the right scent, the dog scoured straight on ; then, stopping suddenly, he sent up a howl, such as never before had been heard by even the oldest holly-tree along Rockly-ridge. Well, the boy was found, and carried home ; but there was hard work to bring him round, and it was many a long day before his light springing step was seen on the village common.

Now, my child, be off ; I see a snow-storm gathering in the west. Take care how you go ; but get across the field, and into the sheltered lane, as fast as possible.

The ancient custom of decorating houses and churches with my branches at Christmas, continued the holly, is believed to have originated from the observances of Druidism; and, in allusion to their enduring nature, my branches were sent by the Romans to their friends with new year's gifts, as emblematic of a lasting attachment. It is, however, believed by many antiquarians, that the custom above alluded to passed from Italy into Britain in the time of Augustine, and that the decorating of sacred edifices and private dwellings with evergreen, was merely designed as an emblem of true religion. Be this as it may, we know that holly and yew branches were used instead of palms at the coming round of Palm Sunday. Methinks there is something pleasing in thus associating evergreens with seasons of thanksgiving. Many find fault with these simple customs, and assign their origin to the dark ages of Pagan superstition; but surely it is better to attribute them to the flowing forth of youthful feeling, in those who where permitted to assemble, it might be, in churches from which they had long been expelled.

Thus moralized the old holly-tree. Snow had fallen through the night, and lay deep upon the ground, and his clear accents broke upon the silence of that wild spot, where not a sound was heard,—for the streamlet, that used to wander with a pleasant murmur through the glen, was bound with icy chains. My bright green leaves, he said, are worthy of remark. Small confiding birds resort beneath their shelter, when other trees are leafless. My lower leaves are covered with sharp thorns, affording an impregnable citadel, while the upper ones are quite smooth.

“O stranger! hast thou ever stood to see

The holly-tree?

The eye that contemplates it well, perceives

Its glossy leaves,

Ordered by an intelligence so wise,

As might confound the atheist's sophistries.

“Below, a circling fence, its leaves are seen,

Wrinkled and keen;

No grazing cattle through their prickly round

Can reach to wound;

But as they grow where nothing is to fear,

Smooth and unarmed the pointless leaves appear.”

And thus, as sang the poet, my leaves are wonderfully constructed for the protection of all wayfaring birds;—honest robin and Jenny wren are here, with many of their relatives, and among them are several fieldfares, lately arrived from the north, and now on their way towards the sheltered parts of Britain.

The eye of him who looks across the dazzling surface sees in me a wayside tree, standing on a rugged bank, the only living object that meets his view. No hand has traced an inscription on my bark, but characters are impressed thereon which tell of wisdom and beneficence. The snow is deep, and the frost exceeding hard; a keen east wind is sweeping across the ridge whereon I stand, yet life is sustained within me; the sharp frost, which benumbs everything else, does not affect my juices,—they still freely circulate, imparting greenness to my leaves and brilliancy to my bright scarlet berries.

At least forty or fifty different varieties are derived from us. Patriarchal trees are we, reckoning among our descend-

ants many of considerable beauty, though seeming to us degenerate; such are the gold and silver edged, and a strange variety produced by culture, with spines on the disc of each leaf, called the hedgehog. And yet, however varying, the wood is similar in all. It is used in veneering, and is stained black to imitate ebony, for knife-handles, and cogs for mill-wheels. Strange to say, my bark, when fermented, and washed from the woody fibres, is made into bird-lime; but this is an appropriation over which I have no control.

Needham Forest is one of our favourite localities, as also the north side of the Wrekin, in Shropshire. We grow in woods and hedges and on windy heaths, beacon trees, that may be seen at a great distance, and serving to guide the traveller ofttimes in a wild and pathless country. Surely we may boast concerning our surpassing beauty, for no evergreen can vie with us. Our highly polished leaves shine like mirrors, and reflect every wandering sun-beam; and then our clusters of scarlet berries! Neither

the yew, nor pine, nor box, is thus beautified. Burns spoke of us with enthusiasm. He sang, that when guiding his plough, the genius of Scotland appeared to him, holding a branch of holly in her hand.—

“ And wear thou this, she solemn said,
And placed the holly on my head ;
Its polished boughs and berries red
Did rustling play,
And like a passing thought she fled
In light away.”

THE END.

INDEX.

| | | Page. |
|----------------------------------|-------------------------------------|-------|
| Abele, or White Poplar | <i>Populus alba</i> | 246 |
| Alder | <i>Alnus glutinosa</i> | 187 |
| Apple-tree, wild | <i>Pyrus Malus</i> | 142 |
| Arbutus, or Strawberry-tree . . | <i>Arbutus Unedo</i> | 309 |
| Ash | <i>Fraxinus excelsior</i> | 126 |
| „ Mountain | <i>Pyrus Aucuparia</i> | 163 |
| Aspen, or Trembling Poplar . . | <i>Populus tremula</i> | 248 |
| Beech | <i>Fagus sylvatica</i> | 106 |
| Birch, common | <i>Betula alba</i> | 204 |
| „ dwarf | „ <i>nana</i> | 221 |
| „ weeping | „ <i>alba</i> , var. | 221 |
| Blackthorn | <i>Prunus spinosa</i> | 149 |
| Box-tree | <i>Buxus sempervirens</i> | 314 |
| Cherry, wild | <i>Prunus Cerasus</i> | 167 |
| Chestnut, Spanish | <i>Castanea vesca</i> | 192 |
| „ Horse. | <i>Æsculus Hippocastanum</i> . . | 264 |
| Cornel-tree, wild | <i>Cornus sanguinea</i> | 296 |
| Crab-tree | <i>Pyrus Malus</i> | 142 |
| Elder-tree | <i>Sambucus nigra</i> | 306 |
| „ dwarf | „ <i>Ebulus</i> | 309 |
| Elm, Southern | <i>Ulmus campestris</i> | 171 |
| „ Wych | „ <i>montana</i> | 177 |
| „ Northern, smooth-leaved . . | „ <i>glabra</i> | 176 |

| | | Page. |
|-------------------------------|-----------------------------------|-------|
| Ferns | <i>Filices</i> | 29 |
| Beech-fern | <i>Polypodium Phegopteris</i> .. | 44 |
| Brake, common | <i>Pteris aquilina</i> | 47 |
| Brittle-fern | <i>Polypodium fragile</i> | 42 |
| Flowering-fern, or Bracken . | <i>Osmunda regalis</i> | 30 |
| Hart's-tongue | <i>Scolopendrium vulgare</i> | 46 |
| „ scaly | <i>Ceterach officinarum</i> | 37 |
| Lady-fern | <i>Athyrium Filix-femina</i> .. | 55 |
| Marsh-fern | <i>Polypodium Thelypteris</i> ... | 54 |
| Moonwort | <i>Botrychium Lunaria</i> | 49 |
| Oak- or Wood-fern | <i>Polypodium Dryopteris</i> ... | 42 |
| Polypody, common | „ <i>vulgare</i> | 41 |
| „ heath | „ <i>Oreopteris</i> | 55 |
| „ royal | „ <i>Lonchitis</i> | 54 |
| Rock-brake, or Parsley-fern . | <i>Pteris crispa</i> | 39 |
| Spleenwort, black | <i>Asplenium Adiantum-nigrum</i> | 54 |
| „ common | „ <i>Trichomanes</i> ... | 35 |
| „ forked | „ <i>septrionale</i> .. | 41 |
| „ green | „ <i>viride</i> | 35 |
| „ sea | „ <i>marinum</i> | 41 |
| „ rue-leaved | „ <i>Ruta-muraria</i> .. | 39 |
| Trichomanes | <i>Trichomanes speciosum</i> | 45 |
| Fir, Scotch | <i>Pinus sylvestris</i> | 322 |
| Hawthorn | <i>Cratægus Oxyacantha</i> | 153 |
| Hazel | <i>Corylus Avellana</i> | 299 |
| Holly-tree | <i>Ilex Aquifolium</i> | 355 |
| Horse-chestnut | <i>Æsculus Hippocastanum</i> .. | 264 |

| | | Page. |
|------------------------------------|--|--------|
| Lichens | <i>Lichenes</i> | 1 |
| Lichen, argil, or orchil | <i>Lichen Rochella</i> | 5 |
| „ blistered | „ <i>pustulatus</i> | 6 |
| „ calcareous | „ <i>calcareus</i> | 8 |
| „ crab-eye | „ <i>perellus</i> | 4 |
| „ creeping verrucose | „ <i>parilis</i> | 6 |
| „ crisp-incrusted | „ <i>paschalis</i> | 9 |
| „ grey stone | „ <i>saxatilis</i> | 6 |
| „ prickly | „ <i>hispidus</i> | 5 |
| „ ragged hoary | „ <i>Prunastri</i> | 7 |
| „ ragged mealy | „ <i>farinaceus</i> | 7 |
| „ scarlet | „ <i>coccineus</i> | 4 |
| „ tartareous | „ <i>tartareus</i> | 4 |
| „ tree-moss | „ <i>plicatus</i> | 7 |
| „ violet-scented | „ <i>politus</i> | 3 |
| „ white coral-crusted | „ <i>corallinus</i> | 4 |
| „ wrinkled sulphur | „ <i>caperatus</i> | 6 |
| Lime-tree | <i>Tilia Europæa</i> | 226 |
| Maple, common | <i>Acer campestre</i> | 259 |
| „ greater, or Sycamore | „ <i>Pseudo-Platanus</i> | 252 |
| Medlar-tree | <i>Mespilus Germanica</i> | 169 |
| Mosses | <i>Musci</i> | 15 |
| Common Hair-moss | <i>Polytrichum commune</i> | 16 |
| Great Hairy Thread-moss | <i>Bryum rutale</i> | 19 |
| Greater Water-moss | <i>Fontinalis antipyretica</i> | 19 |
| Grey Bog-moss | <i>Sphagnum palustre</i> | 16, 22 |
| Shining Feather-moss | <i>Hypnum lucens</i> | 18 |

| | | Page. |
|----------------------------------|------------------------------------|-------|
| Oak, British, common | <i>Quercus Robur</i> | 61 |
| Osier, common | <i>Salix viminalis</i> | 290 |
| Pear-tree, wild | <i>Pyrus communis</i> | 133 |
| Plum-tree, wild | <i>Prunus domestica</i> | 169 |
| Poplar, white, or Abele-tree . . | <i>Populus alba</i> | 237 |
| Spindle-tree | <i>Evonymus Europæus</i> | 298 |
| Willow | <i>Salix</i> | 268 |
| „ Bedford | <i>Salix Russelliana</i> | 284 |
| „ bitter purple | „ <i>purpurea</i> | 281 |
| „ broad-leaved | „ <i>Croweana</i> | 283 |
| „ crack | „ <i>fragilis</i> | 287 |
| „ fine-basket | „ <i>Forbeana</i> | 282 |
| „ least | „ <i>herbacea</i> | 294 |
| „ red | „ <i>rubra</i> | 282 |
| „ round-eared | „ <i>aurita</i> | 288 |
| „ rose | „ <i>helix</i> | 281 |
| „ sweet bay-leaved | „ <i>pentandra</i> | 286 |
| „ triandrous, or smooth . . | „ <i>triandra</i> | 283 |
| „ water | „ <i>aquatica</i> | 287 |
| „ white | „ <i>alba</i> | 292 |
| „ yellow, or golden | „ <i>vitellina</i> | 286 |
| Wayfaring-tree | <i>Viburnum Lantana</i> | 223 |
| Yew-tree | <i>Taxus baccata</i> | 341 |

May, 1850.

LIST OF WORKS
PRINCIPALLY ON
NATURAL AND PHYSICAL SCIENCE,

PRINTED AND PUBLISHED BY
REEVE, BENHAM, AND REEVE,
KING WILLIAM STREET, STRAND.

1.
POPULAR FIELD BOTANY;

COMPRISING

A familiar and technical description of the Plants most common to the British Isles, adapted to the study of either the Artificial or Natural System.

By AGNES CATLOW.

Second Edition.

Arranged in twelve chapters, each being the Botanical lesson for the month.

~~~~~  
“A useful aid to young persons at a loss how to take the first steps in Botany. One of the impediments in their way is the uncertainty that attends all attempts at making out the names of the objects they have to examine, and this impediment can only be removed by drawings and very familiar descriptions. Miss Catlow, in the work before us, has furnished a clear and concise supply of both. We recommend her ‘Popular Botany’ to favourable notice.”—*Gardeners’ Chronicle*.

~~~~~  
“The design of this work is to furnish young persons with a Self-instructor in Botany, enabling them with little difficulty to discover the scientific names of the common plants they may find in their country rambles, to which are appended a few facts respecting their uses, habits, &c. The plants are classed in months, the illustrations are nicely coloured, and the book is altogether an elegant, as well as useful present.”—*Illustrated London News*.

~~~~~  
\* \* In one vol. royal 16mo, with twenty plates of figures. Price 7s. plain; 10s. 6d. coloured.

2. **INSTINCT AND REASON.** By ALFRED SMEE, F.R.S., Author of 'Electro-Biology.' One vol. 8vo. With coloured Plates by Wing, and Woodcuts. 16s.
3. **THE TOURIST'S FLORA.** A Descriptive Catalogue of the Flowering Plants and Ferns of the British Islands, France, Germany, Switzerland, Italy, and the Italian Islands. By JOSEPH WOODS, F.A.S., F.L.S., and F.G.S. 8vo.
4. **POPULAR HISTORY OF MAMMALIA.** By ADAM WHITE, F.L.S., Assistant in the Zoological Department of the British Museum. With sixteen coloured Plates of Quadrupeds, &c., by B. WATERHOUSE HAWKINS, F.L.S. Royal 16mo. 10s. 6d.
5. **VOICES FROM THE WOODLANDS;** or, History of Forest Trees, Lichens, Mosses, and Ferns. By MARY ROBERTS. With twenty coloured Plates by FITCH. Royal 16mo. 10s. 6d.
6. **THOUGHTS ON A PEBBLE;** or, A First Lesson in Geology. By Dr. MANTELL, F.R.S. Eighth Edition, considerably enlarged. With four coloured plates, twenty-seven woodcuts, and a Portrait of the Author. Square 12mo. 5s.
7. **THE POETRY OF SCIENCE;** or, Studies of the Physical Phenomena of Nature. By ROBERT HUNT, Esq., Author of 'Panthea.' Second Edition. Revised by the Author. With an Index.  
 "An able and clever exposition of the great generalities of Science, adapted to the comprehension of those who know little of her mysteries."—*Athenæum*.  
 "One of the most readable epitomes of the present state and progress of science we have yet perused."—*Morning Herald*.  
 "This book displays a fund of knowledge, and is the work of an eloquent and earnest man."—*Examiner*.  
 \*\* One vol. demy 8vo. Price 12s.
8. **EPISODES OF INSECT LIFE.** First Series.  
 "The letterpress is interspersed with vignettes clearly and cleverly engraved on stone, and the whole pile of natural history—fable, poetry, theory, and fact—is stuck over with quaint apophthegms and shrewd maxims, deduced for the benefit of man from the contemplation of such tiny monitors as gnats and moths.—Altogether the book is a curious and interesting one—quaint and clever, genial and well-informed."—*Morning Chronicle*.  
 \*\* One vol. crown 8vo, with 16 illustrations. Price 16s. elegantly bound in fancy cloth. *Coloured and bound extra, gilt, 21s.*
9. **EPISODES OF INSECT LIFE.** Second Series.  
 \*\* One vol. crown 8vo, with 36 illustrations. Price 16s. elegantly bound in fancy cloth. *Coloured and bound extra, gilt, 21s.*

10.  
POPULAR HISTORY  
OF  
BRITISH SEA-WEEDS;

Comprising a familiar and technical description of the Sea-weeds  
of the British Isles.

By the Rev. DAVID LANDBOROUGH, A.L.S.,  
Member of the Wernerian Society of Edinburgh.

~~~~~  
"This charming contribution to the study of a very interesting branch of Natural History combines scientific correctness with artistic beauty."—*Literary Gazette*.

"The book is as well executed as it is well timed. The descriptions are scientific as well as popular, and the plates are clear and explicit. Not only the forms, but the uses of Algæ, are minutely described. It is a worthy sea-side companion—a hand-book for every occasional or permanent resident on the sea-shore."—*Economist*.

"A work of much general interest, and one which every dweller by the sea-side, who makes a right use of his eyes, would do well to procure."—*Edinburgh Witness*.

"Mr. Landsborough's very beautiful volume is meant for young students of Sea-weeds. The volume is illustrated with many coloured plates, executed in a superb style."—*Glasgow Daily Mail*.

"Profusely illustrated with specimens of the various Sea-weeds, beautifully drawn and exquisitely coloured."—*Sun*.

"This elegant work, though intended for beginners, is well worthy the perusal of those advanced in the science."—*Morning Herald*.

"Those who desire to make themselves acquainted with British Sea-weeds, cannot do better than begin with this elegantly illustrated manual."—*Globe*.

~~~~~  
\* \* In one vol. royal 16mo, with twenty-two plates of figures  
by Fitch. Price 10s. 6d. coloured.

11. PANTHEA, THE SPIRIT OF NATURE. By ROBERT HUNT. Author of 'The Poetry of Science.' One vol. 8vo. Price 10s. 6d.  
 "A brave attempt to range from the elemental to the universal, from the known to the unknown."—*Literary Gazette*.  
 "There is, throughout, the closeness of matter and eloquence of style that distinguish the 'Poetry of Science.'"—*Spectator*.
12. A REVIEW OF THE FRENCH REVOLUTION OF 1848. By CAPTAIN CHAMIER, R.N. Two vols. 8vo. Price 21s.
13. THE NATURAL HISTORY OF IRELAND. By WILLIAM THOMPSON, Esq., President of the Natural History and Philosophical Society of Belfast. BIRDS.—Vol. I. Price 16s. cloth. Vol. II. Price 12s.
14. THE RHODODENDRONS OF SIKKIM-HIMALAYA. By Dr. J. D. HOOKER. In handsome imperial folio, with ten beautifully coloured plates. Price 21s.
15. TRAVELS IN THE INTERIOR OF BRAZIL, principally through the Northern Provinces and the Gold and Diamond Districts, during the years 1836–41. By GEORGE GARDNER, M.D., F.L.S. *Second and Cheaper Edition*. 8vo. Plate and Map. Price 12s.
16. ILLUSTRATIONS OF BRITISH MYCOLOGY; or, Figures and Descriptions of British Funguses. By Mrs. T. J. HUSSEY. Royal 4to. Ninety plates, beautifully coloured. Price 7l. 12s. 6d., cloth.
17. THE ESCULENT FUNGUSES OF ENGLAND. By the Rev. Dr. BADHAM. Super-royal 8vo. Price 21s., coloured plates.
18. NARRATIVE OF THE VOYAGE OF H.M.S. SAMARANG in the Eastern Archipelago during the years 1843–46. By Captain Sir EDWARD BELCHER, C.B., F.R.A.S. and G.S. In 2 vols. 8vo, 964 pp., 35 Charts, Coloured Plates, and Etchings. Price 36s., cloth.
19. CURTIS'S BRITISH ENTOMOLOGY, being Illustrations and Descriptions of the Genera of Insects found in Great Britain and Ireland, comprising coloured figures from nature of the most rare and beautiful species and of the plants upon which they are found. By JOHN CURTIS, F.L.S. Sixteen vols. royal 8vo. 770 copper-plates, beautifully coloured. Price £21. (Published at £43 16s.)



20.

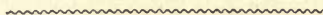
## POPULAR BRITISH ORNITHOLOGY;

COMPRISING

A familiar and technical description of the Birds of the British Isles.

By P. H. GOSSE,

Author of 'The Ocean,' 'The Birds of Jamaica,' &amp;c.

*In twelve chapters, each being the Ornithological lesson for the month.*

"Goes over every month of the year, figures the birds naturally in painted colours, describes them and their habits well, and is a capital manual for youthful naturalists."—*Literary Gazette*.

"To render the subject of ornithology clear, and its study attractive, has been the great aim of the author of this beautiful little volume. It contains descriptions of all our British birds, with the exception of those which may be considered in the light of stragglers, and which are not likely to fall in the way of the young naturalist, for whose use this work is intended. It is embellished by upwards of 70 plates of British birds beautifully coloured."—*Morning Herald*.

"We can answer for this compact and elegant little volume being beautifully got up, and written in a manner likely to attract the interest of the youthful student."—*Globe*.

"This was a book much wanted, and will prove a boon of no common value, containing, as it does, the names, descriptions, and habits of all the British birds. It is handsomely got up, and ought to find a place on the shelves of every book-case."—*Mirror*.



\* \* In one vol. royal 16mo, with twenty plates of figures. Price 7s. plain;  
10s. 6d. coloured.



21. THE DODO AND ITS KINDRED; or, the History, Affinities, and Osteology of the DODO, SOLITAIRE, and other extinct birds of the Islands Mauritius, Rodriguez, and Bourbon. By H. E. STRICKLAND, Esq., M.A., F.R.G.S., F.G.S.; and A. G. MELVILLE, M.D., M.R.C.S. One vol. royal quarto, with eighteen plates and numerous wood illustrations. Price 2*l*s.
22. A CENTURY OF ORCHIDACEOUS PLANTS, the Plates selected from the Botanical Magazine. The descriptions re-written by Sir WILLIAM JACKSON HOOKER, F.R.S., Director of the Royal Gardens of Kew; with Introduction and instructions for their culture by JOHN CHARLES LYONS, Esq. One hundred coloured plates, royal quarto. Price *Five Guineas*.
23. CONCHOLOGIA SYSTEMATICA; or, Complete System of Conchology. 300 plates of upwards of 1,500 figures of Shells. By LOVELL REEVE, F.L.S. Two vols. 4to, cloth. Price 10*l*. coloured; 6*l*. plain.
24. CONCHOLOGIST'S NOMENCLATOR; or, Catalogue of recent Shells. By AGNES CATLOW and LOVELL REEVE, F.L.S. Price 2*l*s.
25. FLORA ANTARCTICA; or, Botany of the Antarctic Voyage. By JOSEPH DALTON HOOKER, M.D., R.N., F.R.S., &c. Two vols. royal 4to, 200 plates. Price 10*l*. 15*s*. coloured; 7*l*. 10*s*. plain.
26. CRYPTOGAMIA ANTARCTICA; or, Cryptogamic Botany of the Antarctic Voyage. By JOSEPH DALTON HOOKER, F.R.S., &c. Royal 4to. Price 4*l*. 4*s*. coloured; 2*l*. 17*s*. plain.
27. THE BRITISH DESMIDIEÆ; or, Fresh-Water Algæ. By JOHN RALFS, M.R.C.S. Price 36*s*. coloured plates.
28. CONCHYLIA DITHYRA INSULARUM BRITANNICARUM. By WILLIAM TURTON, M.D. Reprinted verbatim from the original edition. Large paper, price 2*l*. 10*s*.
29. THE PLANETARY AND STELLAR UNIVERSE. By ROBERT JAMES MANN. Price 5*s*., cloth.
30. ILLUSTRATIONS of the WISDOM and BENEVOLENCE of the DEITY, as manifested in Nature. By H. EDWARDS, LL.D. Price 2*s*. 6*d*., cloth.

POPULAR  
BRITISH ENTOMOLOGY;

COMPRISING

A familiar and technical description of the Insects most common  
to the British Isles.

By MARIA E. CATLOW.

*In twelve chapters, each being the Entomological lesson for the month.*

---

“Judiciously executed, with excellent figures of the commoner species, for the use of young beginners.”—*Annual Address of the President of the Entomological Society.*

“Miss Catlow’s ‘Popular British Entomology’ contains an introductory chapter or two on classification, which are followed by brief generic and specific descriptions in English of above 200 of the commoner British species, together with accurate figures of about 70 of those described. The work is beautifully printed, and the figures nicely coloured, and will be quite a treasure to any one just commencing the study of this fascinating science.”  
—*Westminster and Foreign Quarterly Review.*

---

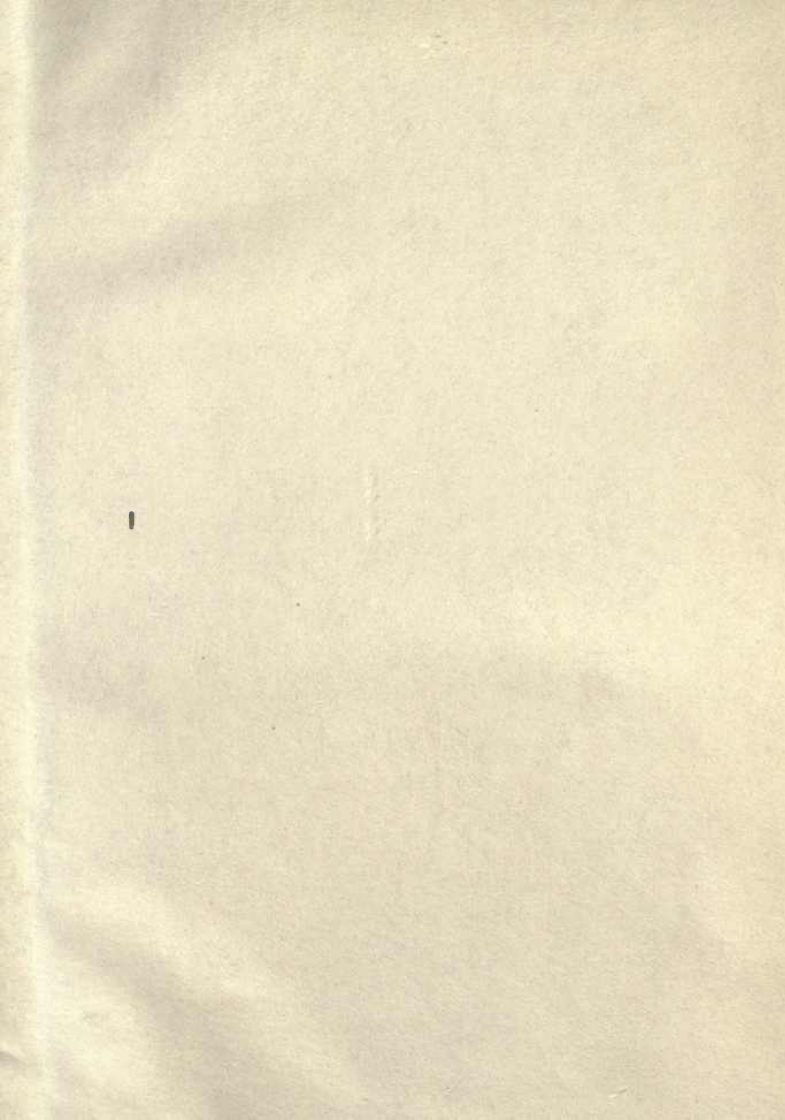
\* \* \* In one vol. royal 16mo, with sixteen plates of figures.  
Price 7s. plain; 10s. 6d. coloured.

## Serials.

32. CURTIS'S BOTANICAL MAGAZINE; by Sir WILLIAM JACKSON HOOKER, F.R.S., V.P.L.S., &c., Director of the Royal Gardens of Kew. With observations on the culture of each species, by Mr. John Smith, A.L.S., Curator of the Royal Gardens. In monthly numbers, each containing six plates, price 3s. 6d. coloured.
33. HOOKER'S JOURNAL OF BOTANY; or, KEW GARDEN MISCELLANY. Edited by Sir WILLIAM JACKSON HOOKER, F.R.S., &c. In monthly numbers. Price *One Shilling*.
34. ZOOLOGY OF THE VOYAGE OF H.M.S. SAMARANG. Edited by ARTHUR ADAMS, Assistant-Surgeon, R.N. FISHES. By Sir JOHN RICHARDSON, M.D., F.R.S. CRUSTACEA. By the EDITOR and ADAM WHITE, F.L.S. MOLLUSCA. By the EDITOR and LOVELL REEVE, F.L.S., including the anatomy of the *Spirula*, by Prof. OWEN, F.R.S.
35. PHYCOLOGIA BRITANNICA; or, History of the British Sea-weeds. By Professor HARVEY, M.D., M.R.I.A. In parts, price 2s. 6d. coloured; large paper, 5s. To be completed in 60 parts. Part 46 just published.
36. NEREIS AUSTRALIS; or, Illustrations of the Algæ of the Southern Ocean. By Professor HARVEY, M.D., M.R.I.A. To be completed in Four Parts, each containing 25 coloured plates, imp. 8vo, price 1l. 1s. Parts 1 and 2 recently published.
37. CONTRIBUTIONS TO ORNITHOLOGY. By Sir WILLIAM JARDINE, Bart. In parts, each containing 4 plates, price 3s.
38. CONCHOLOGIA ICONICA; or, Figures and Descriptions of the Shells of Molluscous Animals. By LOVELL REEVE, F.L.S. Demy 4to. Monthly. Eight plates. 10s. coloured. Part 84 just published.
39. ELEMENTS OF CONCHOLOGY; or, Introduction to the Natural History of Shells and their molluscous inhabitants. By LOVELL REEVE, F.L.S. Royal 8vo. In twelve parts, each containing five plates. Price 3s. 6d. coloured.
40. CURTIS'S BRITISH ENTOMOLOGY. Re-issued in monthly parts, each containing 4 coloured plates and corresponding text. Price 3s. 6d.
41. A CENTURY OF ORCHIDACEOUS PLANTS. Published in monthly numbers, each containing five plates. Price 5s.

~~~~~  
LONDON:

REEVE, BENHAM, & REEVE, KING WILLIAM STREET, STRAND.



LIST OF NAMES

Index

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

Index

THESE NAMES ARE LISTED IN THE ORDER
IN WHICH THEY WERE RECEIVED BY THE
COMMISSIONER OF THE GENERAL LAND OFFICE
ON THE 1st OF JANUARY 1880.

44

